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VIRGINIA MEDICAL MONTHLY

(Founded by Landon B. Edwards, M. D., April 1874)

PUBLISHED MONTHLY BY THE MEDICAL SOCIETY OF VIRGINIA

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1105 West Franklin Street

Richmond 20, Virginia

Annual Subscription—\$2.00

Single Copies—25¢

TABLE OF CONTENTS

GUEST EDITORIAL

Private and Public Medical Practice—

E. M. Holmes, Jr., M.D.----- 1

ORIGINAL ARTICLES

Diagnosis of Chest Pain—Paul D. Camp, M.D., and
Herbert G. Langford, M.D.----- 3

Penicillin Hypersensitivity—Wm. P. Coleman, M.D., and
Oscar Swineford, Jr., M.D.----- 6

Gastrojejunal Stoma—Harry J. Warthen, M.D.----- 10

Hepatic Coma—Stuart Ragland, Jr., M.D.----- 14

Chronic Illness in Virginia—Malcolm H. Harris, M.D.--- 19

Hydrocortisone in Arthritis—Mary C. Gray, M.D.----- 21

The Motor Innervation of the Urinary Bladder in Animals
and Man—Everett H. Ingersoll, Louise L. Jones, and
Erling S. Hegre ----- 23

Note Concerning Endemic Goiter, Dental Caries and Drink-
ing Water—Frank L. Apperly, M.D.----- 26

Treatment of Glaucoma—Ben H. Hines, M.D.----- 27

LEGISLATIVE FRONT

Social Security—Big Issue in '56----- 28

MENTAL HEALTH

Occupational Therapy for Men----- 29

PUBLIC HEALTH

Virginia Program for Purchase, Distribution, and Admin-
istration of Poliomyelitis Vaccine----- 31

PERSONALITIES

Views at the Annual Meeting----- 33

PRESIDENT'S MESSAGE

Corporate Practice of Medicine----- 36

EDITORIAL

Our New Seal----- 37

SOCIETY PROCEEDINGS ----- 38

NEWS ----- 39

OBITUARIES ----- 42

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INDEX TO ADVERTISERS—Page 46

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PARKE, DAVIS & COMPANY DETROIT, MICHIGAN

Guest Editorial

Private and Public Medical Practice

MANY times since the close of World War II we have heard and read that organized medicine is undergoing transition and that its basic concepts are changing. We have also heard of the difficulties experienced by those who hope to predict the future with exactitude. Perhaps a more accurate statement of the situation is that organized medicine is merely keeping abreast of the changing social conditions that are occurring in every part of the world.

Since the turn of the century, progress in the conquest of disease has improved the general health of the population. As a result, man's longevity has been increased beyond our expectations. Dr. John Lynch, commenting on the remarkable longevity of Americans, states in his erudite paper, "Geriatrics Unlimited", presented to the Richmond Academy of Medicine in 1950 and published in the Virginia Medical Monthly, Volume 79, January 1952:

"As a physician and a member of the American Medical Association, I am justly proud that this increase (in longevity) has been due in a large measure to the work of physicians and allied scientists working under a free enterprise system of government. This to me is the strongest argument against regimenting a profession which has given the world its best health and longest living."

The inter-relationships and mutual dependence of private and public practice of medicine thus becomes increasingly apparent. Fifty years ago, the extension of life through the prevention of communicable diseases was the primary objective of the practitioners of public health and preventive medicine. Efforts toward the control of communicable diseases were largely confined to such simple procedures as isolation and quarantine of the infected and the restriction of the activity of those persons in the population who had been exposed to contagion. Community health programs were designed to protect the public through the safe-guarding of public water and food supplies and the proper disposal of sewage. Thus, early public health work was restricted to disease prevention programs, and health agencies assumed responsibility for providing medical care to only the indigent in the population.

From these minor beginnings in medical care, the responsibility for providing medical care has continually grown. In the last fifty years, the improved nutritional status of the population, better housing, and improved environmental conditions have made radical changes in the structure of our society. These advances in the general level of living coupled with even greater advances in the practice of medicine have increased man's longevity by 48 years. Thus, public health is today faced with problems centered around the aged and chronically ill in the population. Today's public health administrator is concerned with the provision of structured medical services for these groups.

The provision of these services, i.e., outpatient diagnostic clinics and detections centers for the ambulant patient, adequate hospital beds for the community's acute and long-term sick, rehabilitation and retraining services, nursing homes and convalescent facilities presents a challenge to both the health worker and to organized medicine.

Increasingly, there is a demand on the part of industry for total services. No longer is industry concerned only with pre-employment examinations, first-aid services, accident prevention, plant safety programs, and the like. Both industry and labor are demanding complete and comprehensive health and medical services. Public interest in mental illness is focusing attention on preventive mental hygiene and is creating a demand for more realistic and basic prevention programs. Modern technological advances are causing changes in our basic sanitation programs. Environmental sanitation is rapidly undergoing modernization. It becomes increasingly apparent, therefore, that health agencies will have to work in closer cooperation with hospitals, with physicians in private practice, and with the variety of auxiliary medical and technological professions concerned with the population's health and well being. In brief, as medicine moves from its bio-physical era to a new bio-social phase, complete cooperation between private practitioners of medicine and public health officers becomes imperative. We believe that this cooperation can best be achieved on the local level and through joint planning wherein local Boards of Health and local medical societies work in close cooperation, reviewing every aspect of the community's health planning. Such joint planning has proven effective in the past. In the future, it will be a community's best safeguard against nationally sponsored and financed health and medical programs. Such team-work is essential if we are to safely chart the future of America's structured health programs.

The immediate past-president of The Medical Society of Virginia, Dr. Carrington Williams, in his presidential address at the 108th meeting of the society, very wisely warned the membership against the dangers of bureaucratic action, not only on the part of the federal government, but also on the part of certain voluntary agencies at their national level. We quote from Dr. Williams' address.

"It seems to me that serious thought should also be given to the recent expansion of the activities of the American Medical Association. Its budget has multiplied many times to reach almost five million dollars for the current fiscal year. This expansion compares in proportion too closely to the federal government. Like the federal government, too, numerous bureaus have developed and expanded. The work of these groups has been uniformly good, we could not get along without them, but again from the federal government we should be warned by the power of bureaus entrenched in the security of large budgets and the same personnel whose perspective can become distorted."

Dr. Williams also commented on the increasing number of medical and scientific societies and cautioned against the increasing number of voluntary health societies and agencies. We quote:

"The public and the doctors have organized societies on many special diseases. These societies have done much to help the victims, but they have also created false impressions of the relative importance of certain conditions."

With the trend toward national level planning on the part of both official and voluntary health and medical agencies, it is essential that organized medicine resist the tendency toward bureaucracy. We believe that this can best be accomplished through close cooperation between practitioners of public and private medicine in the towns and cities, hospitals and offices where they meet and work together.

E. M. HOLMES, JR.

Editor's Note: Dr. Holmes is Director of Public Health of the City of Richmond.

Diagnosis of Chest Pain

PAUL D. CAMP, M.D.

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Richmond, Virginia

THE correct diagnosis of chest pain is of prime importance to all physicians as this is one of the most common presenting complaints, and certainly no symptom deserves more thorough and conscientious study, for upon our diagnosis may rest the decision as to whether or not a patient may have to change his complete routine of life. The diagnosis of each case complaining of chest pain presents a grave responsibility to the conscientious physician. Harrison¹ has stated that 15-25% of patients sufficiently ill to require hospitalization complain of this symptom.

We present in this paper the data on 100 consecutive new patients seen by us in private office and hospital practice. The exact diagnosis was not clear in quite a number of these during their first consultation and at times repeated studies were necessary to establish the final correct diagnosis. Such necessary studies were carried through, and, therefore, we hope the presentation of our findings will be found of interest. In our practice, because of its specialized character, approximately 46% of new patients over the period analyzed had chest pain as their most important symptom. As a rule, these patients with chest pain were seen because they or their doctor felt that "heart pain" was present.

It is of interest, therefore, that only half of this series, which we feel is slanted heavily towards the organic by being mainly referral, had pain due to myocardial disease. Some did have pain which might be considered to be of "heart origin". These of "heart origin", but not due to myocardial ischemia, we discuss immediately below.

I. (1) Sharp, sticking precordial one-second pains: These may occur without any cardiac abnormality, but are listed here because they frequently do occur simultaneously with extrasystoles, and are abolished if the extrasystoles are abolished.

(2) Pain resembling in intensity and severity myocardial infarction, due to idiopathic pericarditis. Approximately 2% in this series have the difficulty. This type of pain may be very difficult to differentiate from myocardial infarction.

Classically, the patient will have more fever and a greater leukocytosis at the onset but this is not

absolute. They will have a friction rub early, but if the history is not clear, the patient who had an almost silent infarction several days before being seen may have developed a rub by the time of first professional care. Serial electrocardiograms may or may not be of great aid in the differential diagnosis. Frequently only repeated observation will make the diagnosis clear.

The fact that the prognosis in idiopathic pericarditis is very good, whereas, the prognosis in myocardial infarction is of necessity guarded, causes the correctness of the diagnosis to be of the greatest importance.

(3) Pain resembling angina pectoris in mitral stenosis. We have had only one such patient, a white male in his 30's, who developed repeated episodes of severe squeezing substernal pain with shoulder radiation, coming on with exercise and relieved by rest, and lasting 5-10 minutes. Since his mitral valvulotomy by Dr. T. N. P. Johns, these symptoms disappeared. We feel that this is an example of the so-called "pulmonary artery syndrome" of Tinsley Harrison, which he attributes to distention of the pulmonary artery.

II. Organic non-cardiac chest pain:

(1) Hiatus hernia. Only one of the 50 chest pains carefully reviewed were due to this, which is about the true incidence, we think. In type and severity the pain may be indistinguishable from angina pectoris or myocardial infarction and may have similar radiation. Several points are of some value in substantiating a diagnosis of hiatus hernia, namely:

(a) Accentuation by meals or recumbency.

(b) Frequent presence of obesity.

(c) Absence of electrocardiographic change, and, of course, x-ray evidence of the hiatus hernia. It must be emphasized that these points are of relative value only, as the following brief history indicates.

A 39 (?) year old white male developed severe substernal pain, was seen by Dr. Richard Bowles and referred to our service. On admission he was slightly cyanotic, cold, shocky and in extreme pain. He developed a little fever and leukocytosis but five-12 lead electrocardiograms over 28 days remained normal. A gastro-intestinal x-ray series showed a small central hiatus hernia. One of the authors

¹Presented at annual meeting of The Medical Society of Virginia, Richmond, October 16-19, 1955.

(H. G. L.) found it difficult to believe that this represented myocardial infarction. However, when the patient returned in two months with a classical infarction he changed his mind.

Returning to the true hiatus hernia, it has been apparent in our series that many of these patients are quite emotionally upset. This may be the factor that makes an asymptomatic hernia give symptoms.

(2) Duodenal ulcer.

One patient was referred in (No. 7238) by Dr. Joseph Hoge with severe substernal pain radiating to the right shoulder, requiring morphine for relief. When the patient's symptoms subsided, the history of previous severe epigastric burning was obtained. Repeated electrocardiograms were obtained and were all normal. Gastro-intestinal x-ray series showed an active duodenal ulcer.

(3) Esophageal disease.

One patient in this series with a complaint of repeated choking and substernal burning, with a normal cardiovascular system, had a 2-3 cm. diverticulum, apparently congenital, of the mid esophagus. We think that her complaints were related to this, but it is to be recalled she was extremely nervous.

Esophagospasm and carcinoma of the esophagus, too, may be associated with pain, but we have no personal instances of this in this particular series.

(4) Disease of the spine.

A 40 year old school teacher fell into a ditch while fishing. At midnight he developed excruciating substernal pain, without radiation except slightly to the mid back. Examination disclosed an old amputation of one leg and compensatory scoliosis. There was localized tenderness over the 5th thoracic vertebrae. However, because of the excruciating pain, he was hospitalized. Electrocardiograms were normal and his back pain became more prominent. X-ray showed the same scoliosis demonstrated on physical examination.

Many diseases of the vertebrae can produce anterior chest pain; therefore, a patient with undiagnosed chest pain must have a careful and complete examination of the spine including thorough x-ray studies.

(5) Diseases of the ribs.

One of the patients had received a steering wheel blow to his chest two days previously. He complained of aching precordial pain with accentuation on breathing or exertion. X-ray of the ribs was negative but there was marked sternal tenderness.

(6) Diseases of the lungs and pleura.

The analyzed group had only two examples of this, but both pleural irritation and pulmonary

embolism produce pain which may be the presenting symptom.

III. Chest pain associated with emotional difficulties and without definite organic disease.

Next to pain due to myocardial ischemia, this has been the most frequent cause of chest pain, with 44% of the chest pains falling in this group. One-half of these patients, or 22%, had an obvious precipitating cause for their complaint in the recent death of a close relative with heart disease.

It is in this group especially that a careful and detailed history and physical examination, with full work up including electrocardiograms provides a firm basis for psychotherapy.

These patients may have various tender areas on their precordium. One patient had tenderness of the costo-chondral junction (Tietze's syndrome). However, we feel that this is merely one type of the localized areas of tenderness of which these patients complain. These areas are of practical importance in that at times local infiltration with procain may give marked relief if used in conjunction with heat and handling of appropriate emotional problems.

Other minor problems may add to the chest pain. One patient's pendulous breasts seemed significant and proper support helped. Several, without any specific disease of the gastro-intestinal tract, had accentuation of their symptoms after minor dietary indiscretions, such as fried foods. We think this illustrates a general principle in these patients.

This principle is that it often requires a summation of stimuli to produce disturbing sensations. In other words, a nervous patient may not fix his anxiety unless a bruise, or pendulous breasts, or pectoral pain due to unaccustomed use of an arm provides a focus for him to center on. Then, some minor indigestion, by providing a sense of bloating and high left upper quadrant discomfort may compound his difficulty. Successful therapy requires attention to all of these factors.

We believe a careful explanation to the patient of the mechanism of his discomfort, with especial emphasis on the point that, although the discomfort may appear to him to be connected with his heart, such is not the case, will be of great help in reassuring such an anxious patient.

IV. Chest pain of myocardial origin: None of the above types of discomfort would be as important if it were not for the real necessity of correct diagnosis of pain due to myocardial ischemia.

This was present in 50% of the patients with chest pain as a presenting complaint. In three (12%) of these patients it was associated with significant

valve lesion; one with aortic stenosis, one aortic regurgitation, and one a somewhat atypical story associated with marked left ventricular enlargement and mitral regurgitation.

Character of the pain or sensation: Only 20% of the patients with pain caused by myocardial ischemia were willing to call their pain definitely squeezing, constricting or choking. 20% said it felt more like a "tightness" than the above. 12% described it as a dull ache. 9% complained primarily of burning. Some found it indescribable.

Of especial interest was the one patient that had definite accentuation of pain on breathing.

Location: All patients of this group had, no matter what their radiation, some substernal pain. This is in marked contrast to the Harrison series, where only 50% had substernal pain. However, we have encountered patients who had pain purely in the back of the neck or in the back due to myocardial ischemia.

Duration: The duration of the pain in general was, of course, more prolonged in the patients having myocardial infarction than in those having angina pectoris. We believe that pain of myocardial origin lasting over thirty minutes is rarely, if ever, due to uncomplicated angina pectoris.

Electrocardiographic findings: While we hesitate to make a definite diagnosis of myocardial infarction without electrocardiographic confirmation, it must be emphasized that this may not always occur promptly after myocardial infarction. One of these patients (No. 7248) had a normal twelve lead electrocardio-

gram five days after his initial pain, but when seen by us three weeks after the pain, with no further history of difficulty, there was definite electrocardiographic evidence of infarction.

Also, if the history is typical, we are quite willing to make the diagnosis of angina pectoris in the presence of a normal electrocardiogram. An exercise test may be done if there is question; however, in general, the more careful the history the less often will an electrocardiogram after exercise be necessary to establish a diagnosis. Since exercise tests in patients with angina pectoris are not without danger, we believe such tests should be used only when absolutely necessary for diagnosis. Furthermore, we believe that the electrocardiographic changes should be definite and not equivocal if the final decision concerning angina pectoris is to be based on such changes.

SUMMARY

Many of the patients with chest pain will not have myocardial disease. Successful diagnosis is dependent upon a meticulous history and physical examination, interpreted in the light of the many factors which will cause chest pain. Severe or prolonged chest pain should be considered to be due to myocardial infarction until proved otherwise. One electrocardiogram is not adequate to rule out a myocardial infarction.

*Professional Building,
Richmond Virginia*

Nail Polish Sealer

A Miami physician has outdone the proverbial female who fixes everything with a hairpin or a little nail polish. Dr. Hollis F. Garrard has successfully used nail polish sealer in treating a fungal infection of the fingers and nails. He said the sealer acts as an "artificial cuticle" and keeps water and foreign material from getting under the loose skin around the nail. The sealer is applied to the nail and nail

fold in the morning and left on until bedtime when it is removed and another medication applied.

The sealer, Dr. Garrard said, is superior to rubber gloves or finger cots in protecting the infected nails.

Dr. Garrard, who has used the method on 59 patients with monilial paronychia, reported the technique in the October Archives of Dermatology, published by the American Medical Association.

Penicillin Hypersensitivity

A Brief Review and Report of An Extreme Case

WM. P. COLEMAN, M.D.
OSCAR SWINEFORD, JR., M.D.
Charlottesville, Virginia

THE problem of penicillin hypersensitivity is increasing in importance, rapidly. The purpose of the following brief review, plus the report of a case of anaphylactic shock following a scratch test with penicillin, is to increase (1) the awareness of the risks of penicillin therapy and (2) the facility with which they are avoided, recognized and treated.

CASE REPORT

A 40-year old white female was seen on 1-31-55 complaining of "Hives and Anaphylactic Shocks", intermittently for 18 months.

The urticaria occurred every three or four weeks, usually just before menstruation. She suspected milk and grains. Aspirin, previously well tolerated, now caused generalized urticaria. The penicillin history will be discussed later.

The first anaphylactic shock occurred one year previously, fifteen minutes after an injection of an estrogen preparation. Shock, unconsciousness, cyanosis, chest pain, urticaria, and difficult respiration were observed by the physician who treated the reaction. She recovered in a few hours. One month later, in a hospital, she was given an injection of demerol with no reaction. The following day, a second injection of demerol was followed promptly by a similar episode. In December, 1954, following the ingestion of an unidentified liquid medicine and some milk and crackers, she developed a mild transient reaction characterized by cyanosis, difficult respiration, and urticaria. She had avoided milk and wheat for the previous six months on the advice of her local allergist. She was then referred to this clinic.

A detailed medical survey revealed a number of problems for the relief of which the estrogen, demerol and liquid medicine had been given. Otherwise they were not related to the chief complaints.

Read before the annual meeting of The Medical Society of Virginia, in Richmond, October 16-19, 1955.

From the Allergy-Arthritis Division, Department of Internal Medicine, University of Virginia School of Medicine.

THE REACTION

Many routine scratch tests were done. There was a huge reaction to penicillin. The scratch test dose of penicillin was about 500 units. After the customary waiting period of 20 minutes, intradermal tests with foods were started. Suddenly she complained of burning of skin. Several wheals were noted. She lost consciousness rapidly. Respirations slowed to four per minute. The chest was clear on auscultation. Heart sounds were very slow and barely audible. Radial pulse and blood pressure were unobtainable. She was cold, sweaty, incontinent of urine, cyanotic, and had convergent strabismus.

In rapid succession, the following therapy was started: Aqueous adrenalin subcutaneously, the shock position, 0.5 gram of aminophyllin intravenously, an intravenous drip of two ampules of norepinephrine in saline, intermittent oxygen for cyanosis, and 100 mg. of chlor-trimeton intramuscularly. Thirty minutes later, a 5% glucose infusion containing 100 mg. of hydrocortisone in alcohol was started. A strong pulse was felt in the abdominal aorta in a few minutes. A blood pressure was first detected in about forty minutes, at 80/50. It became fairly stable at 105/70 and she regained consciousness about one hour after the onset of shock. But it was seven hours before a normal blood pressure could be maintained without norepinephrine. When she became conscious, she complained bitterly of severe headache and of mid-epigastric and upper quadrant abdominal pain. An uneventful convalescence followed.

HER PENICILLIN HISTORY as obtained initially was that she developed urticaria and/or angioneurotic edema several times after taking it during the previous eighteen months. After recovery from the shock, her family reported that she had developed (1) urticaria locally from drying her hands and arms on a towel on which some oral penicillin had been

WILLIAM P. COLEMAN, M.D., *Fellow in Allergy and Arthritis.*

spilled, and (2) generalized urticaria when she entered a room in which penicillin was being given.

LABORATORY DATA

An intradermal test with normal saline was negative. A scratch test with approximately one unit of crystalline penicillin was strongly positive twice. Five passive transfer sites on both arms of a volunteer were prepared with 0.1 cc. of the patient's serum. One of these sites was tested intradermally with 500 units of penicillin. All nine of the other prepared sites reacted at least as strongly as the one which was tested. This is an example of the phenomenon of contralateral passive transfer. A precipitin test with 10,000 units per cc. of penicillin was negative. The paper electrophoretic pattern of the patient's serum was not abnormal. Physical allergy tests for heat and cold were negative.

Additional tests were done, using a new syringe and needle for each dilution to avoid cross-contamination by syringes which had had stronger penicillin concentrations in them. The response to a scratch test with one one-thousandth (0.001) of one unit of crystalline penicillin was equivocal. There was no reaction to a scratch test with one ten-thousandth (0.0001) of a unit. An intradermal test using one two-hundred-thousandth (0.000005) of a unit of penicillin gave a definitely positive reaction, and the patient complained of a burning sensation in the roof of the mouth and tightness in the throat. Intradermal tests done with two one-millionths (0.000002) of a unit, and with one twenty-millionth (0.0000005) of a unit of crystalline penicillin gave equivocal reactions when compared with a saline control. Scratch tests with 1:10 and 1:100 dilutions of penicillin were negative.

Titration of the reagins in the patient's serum were positive in a dilution of 1:25, but were equivocal in the 1:125 dilution. The test sites were desensitized by the reactions. An attempt at passive local sensitization of a rabbit's skin with the patient's serum gave equivocal results. A guinea pig was not sensitized passively by her serum.

COMMENT

It seems reasonable to assume, in such a highly sensitive person that the previous anaphylactic reactions were due to penicillin contamination in the syringes¹⁷. Hyposensitization was considered too dangerous to attempt, especially since spontaneous loss of or reduction in hypersensitivity is known to occur^{1,16}. Instead, she was advised to wear a metal tag warning against the use of penicillin or of

syringes in which penicillin had been used. The absence of expiratory, asthma-like dyspnea during the period of shock, plus the severe abdominal pain suggests that this patient had the canine type of anaphylactic shock, in which the hepatic vein is the chief shock organ¹⁹.

TYPES OF PENICILLIN REACTIONS

Table I summarizes the types of reactions that may occur to penicillin. Penicillin is the commonest cause of drug allergy¹. Fortunately most reactions are minor. The incidence of penicillin reactions of all types has been estimated at from 2 to 20 per cent^{1,6,7,8}. Anaphylactic shock is the most dangerous

TABLE I*

TYPES OF PENICILLIN REACTIONS

I. Hypersensitivity Reactions:

A. General:

1. Anaphylaxis.
2. Herxheimer reactions, generalized.

B. Local:

1. Asthma
2. Hepatitis, nephritis, hydroarthrosis, etc.
3. Dermatoses.
 - a. Contact dermatitis.
 - b. Stomatitis, proctitis, urethritis, etc.
 - c. Morbilliform eruptions.
 - d. Vesicular or bullous reactions.
 - e. Fixed drug reactions.
 - f. Exfoliative dermatitis.
 - g. Activation of latent fungus infections.
4. Urticaria and/or angioneurotic edema.
5. Reactions at injection site.
 - a. Immediate inflammatory reaction.
 - b. Delayed inflammatory reactions (Arthus).
 - c. Granulomatous reactions.

II. Toxic Manifestations:

- A. Generalized "Toxic" reaction.
- B. Hormonal disturbances.

III. Mechanical Reactions:

- A. Nerve damage.
- B. Abscess.
- C. Intravascular administration:
 1. Vasculitis.
 2. Thrombosis or embolism.

IV. Secondary Infection:

- A. Introduction of organisms.
- B. Faulty sterilization.

V. Other Reactions:

- A. Myocarditis.
- B. L. E. Cells.
- C. Periarthritis nodosa.
- D. Superinfection.
- E. Agranulocytosis.
- F. Photosensitivity.

* Modified after Farrington.¹⁰

type of reaction. Hussar and Holley² found reports of 48 deaths from anaphylactic shock following penicillin injections, Welch *et al.*³, in a two-year survey of 95 large general hospitals, found 59 anaphylactic reactions to penicillin. 19 were fatal. One death was due to oral penicillin. They found 25 cases of anaphylactic reactions to penathamate (Neo-Penil). Five were fatal. A history of allergic disease was present in 26 of these cases. Strauch *et al.*⁴ added two anaphylactic deaths from penicillin. Eisenstadter and Hussar⁵ reported a severe anaphylactic reaction to oral penicillin. Lapin⁹ listed 149 reports of fatal and near-fatal immediate reactions to penicillin from January, 1953, through December, 1954. Reports of fatal and near-fatal reactions to penicillin were less frequent for children than for adults. Of the 149 cases reported by Lapin, 136 were over thirteen years of age, 61 were fatal and 75 were near-fatal. Forty-two reactions were from Neo-Penil. Undoubtedly many fatal and near-fatal reactions are not reported.

Penicillin reactions occur in many and varied forms. In addition to hypersensitivity reactions, Farrington¹⁰ lists toxic reactions, those arising from faulty injection technic, and those involving the cardio-vascular or hematopoietic systems.

Dermatitis medicamentosa may arise from oral or parenteral administration¹. Urticaria and/or angioneurotic edema may occur promptly or as the delayed serum sickness-like reaction¹⁰. Erythema nodosum and erythema multiforme have been reported⁸. Contact dermatitis and mucous membrane reactions may follow the local use of penicillin¹⁰. Exfoliative dermatitis is a serious complication which may be fatal^{11,12,13}. Vesicular or bullous dermatoses may occur alone or in association with exfoliative dermatitis¹⁰.

The serum sickness type of reaction is common, occurring in about 3% of all patients given penicillin orally or parenterally^{1,16}. The manifestations include pruritis, urticaria, joint pains, lymphadenopathy, irregular fever, and eosinophilia. Symptoms may begin 2 to 14 or more days after treatment, usually about 7 days. They usually last 5 to 10 days, but may last for 2 months or more. Purpuric reactions may occur alone or in association with other skin lesions^{1,16}. Agranulocytosis¹⁴ and photosensitivity have been reported^{15,16}. A tentative role of penicillin in the etiology of disseminated lupus erythematosus and in periarteritis nodosa has been mentioned¹. Herxheimer reactions, hepatitis, nephri-

tis, and hydroarthrosis, may also follow penicillin¹⁰.

PREVENTION OF REACTIONS

Measures recommended to prevent or minimize penicillin reactions are: (1) Use only when definitely indicated. (2) A discussion of past penicillin experience before each series of doses. In this hospital, before the first of any series of penicillin injections is given, the nurse is required to ask if there have been any reactions to previous injections. If there has been a reaction, the nurse must have the order re-confirmed before the penicillin can be given. (3) Use oral penicillin when possible. (4) Use other antibiotics in patients who have hay fever, asthma, or atopic dermatitis.*⁴ (5) Inject penicillin far enough down the extremity so a tourniquet can be applied in the event of a severe reaction¹. (6) Do not use syringes previously used for penicillin in patients known to be sensitive to it¹⁷.

Anaphylaxis can occur even though penicillin was well tolerated previously¹⁶. There is no sure way to prevent this except *not* to give penicillin. Skin tests prior to penicillin therapy are of doubtful value, since reactions may occur when skin tests are negative and penicillin may, unpredictably, be well tolerated when skin tests are positive^{4,16}. Even scratch tests may be dangerous, as shown by this case.

MANAGEMENT OF REACTIONS

When penicillin reactions occur, they should be treated promptly in order to lessen their severity. In the immediate severe reactions, a tourniquet should be applied proximal to the injection site if possible. The accompanying shock and cyanosis should be treated as outlined in the case report. Prompt elevation of the blood pressure is of critical importance. Wheezing should be treated with epinephrine and with intravenous aminophylline.

Immediate mild reactions, such as angioneurotic edema or urticaria, should be treated promptly with epinephrine and with antihistamine drugs. ACTH, cortisone, hydrocortisone, or, more recently, metacorten, should be used when symptoms persist in spite of repeated epinephrine and antihistamine therapy. Mild delayed reactions are treated the same way.

Severe delayed reactions which do not respond promptly to the simple therapy used for mild reactions should be treated with cortisone or its derivatives, preferably in the hospital.

There is little or no justification for the continued routine use of penicillin injections since the newer oral penicillins are highly effective, more convenient and much safer.

*This is probably no more applicable to allergic than to non-allergic patients, despite reports to the contrary.

SUMMARY

1. A severe canine type of anaphylactic reaction to a scratch test with penicillin is described.
2. A positive local and a mild systemic reaction followed an intradermal test with one two-hundred-thousandth of one unit of penicillin.
3. The types of allergic reactions to penicillin, their prevention and management are reviewed briefly.
4. Penicillin should be given by mouth instead of by injection, with rare exceptions.

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Aorta Surgery

When the aorta, the main trunk of the circulatory system, needs surgery, physicians face the problem of performing the operation without cutting off circulation. The problem is especially difficult in the arch and descending aorta, the parts lying in the chest, for "irrevocable damage" to the spinal cord may occur if the blood flow is shut off too long. However, a Boston physician, Dr. Herbert D. Adams, reported in the November 19 *Journal of the American Medical Association* that he successfully performed two operations on the thoracic aorta without once stopping the flow of blood. He used a method already found successful in operations on the abdominal aorta. Both operations were for the removal of aneurysms, sac-like bulges in the sides of

the aortic walls.

In his operations, Dr. Adams used an aortic graft, which he inserted as a shunt or by-pass around the aneurysm. While the graft was being inserted, the blood continued to flow through the aorta. After the shunt was in place and the blood was flowing through it, the aorta was clamped shut and the aneurysm removed.

In one of the cases, involving a "huge" aneurysm, the two ends of the aorta were closed and the shunt left as the permanent passage for the blood. In the other case, a second graft was placed between the ends of the aorta as a replacement for the diseased portion and the shunt removed. In both cases the grafts functioned successfully.

Gastrojejunal Stoma

Malfunction Following Gastric Resection

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THE frequency with which gastric resections are carried out, and the fact that many of these procedures are performed by surgeons whose excursions into abdominal surgery are infrequent, justifies a report on a complication which may prove both vexatious and hazardous.

Delayed emptying of the stomach, the complication under discussion, occurs with definite frequency regardless as to the type of resection and anastomosis carried out. Glenn and Harrison,¹ in reporting one hundred gastric resections at the New York Hospital in 1950, found retention in fourteen cases, which lasted from one to thirty-one days. These patients required gastric suction for an average of 8.6 days. None required re-operation.

St. John and associates² found "spasm or obstruction" of the efferent loop in twelve cases and "excessive vomiting" in an additional thirty-two patients in reporting a series of three hundred and ninety-four partial gastric resections performed at Presbyterian Hospital in New York during the years 1936-1945. Allen and Welch³ reported an incidence of 5.3% of stomal obstructions, sufficiently severe to require re-operation, following two hundred and eighty-two gastric operations. These obstructions persisted from fourteen to fifty days, following operation. Approximately the same number of patients had temporary obstruction which cleared up under conservative treatment.

These and other recent reports of temporary malfunction of the efferent loop indicate that this complication occurs in from ten to fifteen per cent of all cases of gastric resection.

This condition results from failure of the stomach to properly empty through the distal loop of the jejunum, and the symptoms usually are manifest about one week after operation. At Presbyterian Hospital in New York it frequently is referred to as "the nine day disorder."⁴ The history in these cases is strikingly constant. Following a gastric resection, with associated gastro-jejunostomy, the stomach, after several days of nasal suction appears to empty satisfactorily. This situation continues

until a week or ten days after operation when nausea, abdominal fullness and vomiting occur. Large amounts of fluid, including all gastric, biliary, and pancreatic secretions, as well as everything taken by mouth are vomited or withdrawn by a nasal suction tube. This condition may continue for days, weeks, or even months, in extreme cases, but ultimate disappears as mysteriously as it appeared.

Barium given by mouth during this period of obstruction will pass freely into the afferent loop of jejunum but it stops abruptly at the efferent end of the gastric stoma or penetrates only a few centimeters into the distal loop of jejunum. Various theories, none of which is too convincing, have been offered to explain this malady. Golden⁴ feels that connecting the efferent loop of jejunum to the greater curvature of the stomach facilitates drainage and makes obstruction less likely. He states the erect posture causes more rapid emptying, and lying on the right side encourages drainage of an efferent loop, if placed on the lesser curvature. Once the obstruction occurs, these postural aids appear to have little influence on emptying.

Herniation of the jejunum through the defect in the transverse colon in posterior anastomoses is an easily understood but infrequent cause of obstruction.

Borden, Ravdin, and Frazier,⁵ in 1937, pointed out that malfunctioning stomas later function normally and they feel that this indicates that the obstruction is not due to an improper anastomosis but that some other factor, possibly hypoproteinemia, is responsible. They state that low plasma proteins, local trauma, and large amounts of saline intravenously cause edema about anastomoses. Allen and Welch also agree with this explanation. Atony of the gastro-intestinal tract due to potassium deficits has been suggested but not proven in this type of obstruction.

Neurogenic unbalance, promoting spasm near the stoma, has been suspected in this condition but the precipitating factor, how to avoid this complication, and the long latent period before the onset of the spasm, have not been explained satisfactorily. Once this condition has developed, there fortunately is less difference of opinion as to what should be done.

Presented at annual meeting of The Medical Society of Virginia, Richmond, October 16-19, 1955.

The plasma protein and potassium level should be determined at once. Lowered proteins are treated by blood transfusions and any diminution of potassium should be overcome by potassium chloride intravenously. The electrolytes must be checked at the onset and frequent determinations should be made throughout the period of obstruction. Careful intake and output records must be maintained and the returns from gastric suction, plus the twenty-four hour urinary output should provide a guide as to what solutions and how much should be given intravenously. A minimum of 3000 c.c. of 5% glucose per day will be required and at least one liter of glucose in normal saline or, better still, Ringer's



Fig. 1—Pre-operative X ray showing deformity of duodenum.

solution should be included in this total. Considerably larger amounts may be needed to offset the fluids lost by nasal suction. If the patient was in relatively good nitrogen balance at the time of operation, and if the obstruction lessens after a few days, the need for protein supplements will, in all probability, not become acute. An obstruction which persists for more than a few days, however, will require proteins intravenously or preferably by bowel. Serious consideration should be given to introducing a catheter into the upper jejunum for feeding purposes after one week of non-emptying of the stomach. If the patient is in exceptionally good condition, and relatively young, a few more days may be permitted to pass before operation is decided upon.

Debilitated patients and especially older ones should be operated upon earlier.

A small amount of barium should be given by mouth prior to operation to verify the presence of a complete obstruction and to localize the site of the blockage.

A laparotomy for the purpose of placing a catheter in the upper jejunum for feeding purposes may serve a second purpose. It is usually preferable to reopen the original incision so that the gastrojejunostomy may be examined to rule out a local cause for blockage. In the case of a posterior anastomosis, the attachment of the defect in the transverse mesocolon to the stomach above the suture line should be checked to rule out the possibility of the stomach having retracted through the stoma with resulting obstruction in the adjacent jejunum. The absence of this hazard in an ante-colic anastomosis or a Billroth I resection should be considered whenever a decision is made as to the type of anastomosis which should be carried out.

Simple inspection of the anastomotic area and reassurance that the anastomosis is patent is all that should be done locally. The impulse to carry out



Fig. 2—X-ray of stomach following resection and Billroth II anastomosis showing failure of gastro-jejunostomy to function. This state of affairs continued for twenty-five days.

more drastic procedures should be resisted. The tissues are edematous, indurated, and friable. The creating of a new anastomosis usually does more harm than good. Kennedy, Reynolds, and Cantor⁶ reoperated upon three patients with persisting vomiting

following gastric resection, with death in all three instances. They advise against re-operation and especially against enteroenterostomy, which was done in two of their three fatal cases.

If the indwelling nasal tube is irritating the pharynx, it also may be necessary to do a catheter gastrostomy to permit continuation of the gastric suction. This, of course, will allow removal of the indwelling Levine tube. The jejunostomy catheter for feeding purposes is inserted into the bowel about 40 cm. below the ligament of Treitz. It should be kept in mind that the condition of the patient will not permit another operation and the procedure carried out at this time must be final.



Fig. 3—X-ray evidence of rapid emptying of stomach after gastro-jejunostomy began to function.

Post-operatively the stomach contents aspirated through the nasal or gastric tube may be returned to the gastrointestinal tract through the jejunostomy and in this manner the administration of fluids and especially electrolytes is simplified. Protein and carbohydrate mixtures are given as additional feeding through the jejunostomy tube and the nutrition of the patient may be readily maintained until the jejunal loop relaxes and nourishment again may be taken by mouth.

An illustrative case is reported:

G.S.B., a forty-three year old white male, was admitted to the Retreat for the Sick on March 11, 1954, with a history of recurring bouts of epigastric

pain for the past eight years. His symptoms had required hospitalization twice during the preceding three years. The disabling pain aroused him at night and had resisted the usual medical measures. Repeated gastro-intestinal X-rays showed an ulcer of the proximal duodenum without obstruction. His general physical examination and the usual laboratory tests showed nothing remarkable.

On March 12, a Billroth II partial gastrectomy, with a Hofmeister type posterior gastrojejunostomy was done. The efferent loop of jejunum was sutured to the lesser curvature of the stomach. The distal end of a nasal tube passed prior to operation was directed into the afferent loop of jejunum to relieve pressure on the closed end of the duodenum. No difficulty was encountered but 500 c.c. of whole blood was given during the procedure.

The immediate post-operative course was uneventful. The drainage through the nasal suction tube lessened and, on the fifth day, the tube was removed. The diet was increased and the stomach emptied normally. Eight days after operation and three days following removal of the nasal tube, the patient complained of gastric fullness and vomited about 700 c.c. of gastric contents. Nasal suction and intravenous fluids were resumed. Laboratory findings, including the serum proteins, were normal. Four days later a barium swallow showed no emptying of the stomach. This state of affairs continued until March 27, fifteen days following the original operation, when increasing pharyngitis, secondary to the nasal tube, necessitated a second operation.

The original incision was re-opened. A small (2 x 3 cm.) hematoma was found beneath the transverse mesocolon but no explanation was found for the failure of the anastomosis to function. A gastrostomy opening was made and a finger could be passed readily through both the afferent and efferent jejunal stomas. A large catheter with extra perforations was passed through the gastrostomy into the efferent loop of bowel to permit aspiration of the stomach and removal of the irritating nasal tube. A smaller catheter for feeding purposes was introduced into the jejunum after the Witzel technique about 40 cm. below the anastomosis.

Fluids were given by mouth and aspirated through the gastrostomy tube. This material was then inserted in the jejunostomy tube at regular intervals. Occasional blood transfusions were given and 1000 c.c. of 5% glucose in water with vitamins and frequently with potassium chloride was given daily. The upper and lower tubes were frequently connected to bridge the gap caused by the obstruction. This

did not consistently empty the stomach and it was necessary to withdraw the stomach contents at intervals and, after adding a high caloric formula, the mixture was returned to the intestinal tract through the jejunostomy tube.

This procedure was continued with minor modifications and discouraging regularity until April 14, twenty-five days after the onset of the obstruction, when, for the first time, a positive gastric balance was noted; 1,360 c.c. were taken by mouth and only 990 c.c. were withdrawn through the gastrostomy tube. Within four days the stomach emptied rapidly and completely. The patient was discharged on the thirty-fourth hospital day and has remained well.

SUMMARY

1. Delayed emptying of the stomach after partial gastrectomy, due to malfunction of the efferent jejunal loop, occurs in ten to fifteen per cent of cases.
2. This failure of the anastomosis to function is probably due to a neurogenic unbalance, although other factors may play a part.
3. If the obstruction persists, re-operation should be performed in order that nourishment may be maintained by returning the gastric contents, plus a high protein and high calorie supplement through a jejunostomy tube. A simultaneously placed gastrostomy tube simplifies drainage of the stomach and permits the removal of the Levine tube.

4. The anastomosis should be examined to rule out mechanical obstruction but, in the absence of this, further operative procedures should be avoided. The temptation to carry out additional drastic surgical operations during this tedious period of waiting is strong, but it must be avoided and only the simplest procedure consistent with maintaining the nutrition of the patient should be done.

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Let's Reminisce!

In the Transactions of The Medical Society of Virginia for 1871, the corresponding secretary reported that in the past 12 months he had written about 25 letters, the majority of which were to the recording secretary. The number of letters received was 24. The recording secretary wrote 1100 letters during the year. "A great number of these letters never received any response—a circumstance that had added no little to the difficulties of rightly performing the duties of this office."

It was voted to pay the recording secretary an annual salary of \$100.00 in addition to defraying the necessary expenses to and from the sessions of the Society.

Hepatic Coma

Clinical and Biochemical Aspects

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HISTORICALLY hepatic coma is a well-known entity and the medical writings of ancient times include descriptions of disturbed consciousness associated with jaundice by Hippocrates and Galen. Frequent references to this phenomenon are also found in writings on liver disease during the 18th and 19th centuries. In 1860, Frerichs,¹ in an article entitled "Treatise on Liver Disease," gave one of the most complete descriptions of this neurological syndrome that has ever been made. More recently, Adams and Foley² have described in great detail the clinical picture of hepatic coma and correlated it with neuropathological findings in the brain. The search for the cause of this syndrome and the speculations regarding its etiology have been many in the past and have attracted the interest and the investigation of competent workers for years. Although I would not go so far as to say that the etiologic problem had been recently solved, there have been developments in the past few years that suggest that a solution is more close at hand. It is in a somewhat speculative realm that we will deal in this regard.

Originally the syndrome was attributed to a retention of bile pigments in the blood stream, and for this reason it was designated as cholemia. Frerichs¹ proved beyond a doubt that the derangement of nervous function was not related to the intensity of jaundice by showing that injections of large amounts of ox bile in the blood stream of dogs had no observable effect on the nervous system. Later it was found when more precise tests were developed that no correlation seemed to exist between an impairment of any measurable function of the liver and the neurological syndrome in question. In 1922, Matthew³ suggested that ammonia might be a causative factor in the meat intoxication or poisoning seen in Eck fistula dogs. However, as far as amino acid excretion was concerned, there was no constant relationship between the patterns of this excretion and "hepatic coma". More recently, however, Walshe,⁴ using paper chromatography, has shown that patients in "hepatic coma" may show increased amounts of glutamine along with other amino acids in the urine and plasma and that the glutamine content of the

cerebro-spinal fluid may be elevated. This and other work, especially the observation of McDermott⁵ and his co-workers on a patient with an Eck fistula who developed a syndrome they termed "episodic stupor" which correlated well with marked increases in blood ammonia concentration, has lead to a heightened interest in the relationship of ammonia and/or amino-acid metabolism to the syndrome referred to as "hepatic coma". But more of this relationship of protein and ammonia to hepatic coma from a clinical standpoint later. First let us examine hepatic coma itself from a descriptive point of view.

Severe liver disease is necessary for the development of hepatic coma. In general, this means decompensated liver disease which would be indicated clinically by such findings as jaundice, ascites, edema, and possibly esophageal varices and also chemically by abnormal liver function tests. Although hepatic coma may occur in individuals who are not jaundiced, this is a rather uncommon finding. Nearly all of the patients who have hepatic coma will also have ascites and some edema.² Even if the patient is not clinically jaundiced, it will usually be found that the serum bilirubin levels are abnormally high. The exceptions to these rules, if you will, are usually patients who have acute massive necrosis of the liver such as that as has been reported with Phenurone or carbon tetrachloride poisoning. It must also be said, however, that hepatic coma may supervene in patients who at the time may seem to be improving with regard to the signs of portal hypertension. However, in these cases we still have the triad present, in general, of jaundice, ascites and edema, despite the fact that the clinical improvement may be obvious in the sense that the ascites may be diminishing or the edema going down and the jaundice fading.

As far as precipitating factors are concerned other than that of the progressive downhill natural course of the illness itself, we might mention such things as hemorrhage from esophageal varices, intercurrent infection of almost any type. (Frequently patients with severe liver disease may develop a pneumonitis

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Read before the Richmond Academy of Medicine, April 26, 1955.

Received for publication August 31, 1955.

or pneumonia that will go unrecognized and then be followed by the onset of hepatic coma.) The use of sedative drugs is thought also in some cases to have a precipitating effect and not infrequently patients with incipient hepatic coma who are disturbed at night will be given sedatives to quiet them and in such a manner actually hasten the development of the syndrome. Finally, it has also been observed that patients having massive abdominal paracenteses will not uncommonly develop hepatic coma within a few hours after the procedure has been accomplished. Surgical procedures in a critical period of the liver disease may, of course, also precipitate hepatic coma, and this fact understandably is one of the major reasons for the rigid requirements of Linton⁶ and his group in choosing patients with portal hypertension who are suitable for the spleno-renal or portocaval shunt operations.

Hepatic coma may be said to manifest itself primarily in two ways: (1) As a disturbance of consciousness, and (2) as a disturbance of motor function. Although the disturbance in motor function may be the first abnormality to be noted clinically, it is probably fair to say that, if the observer is sufficiently astute and observant, he will note that the first aberration will fall in the category of disturbed consciousness. This latter may occur either insidiously or abruptly, but is usually insidious, the first sign being that of a mild confusion. Anorexia, mental dullness, and an abnormal degree of drowsiness is often seen at the outset. Such patients may show a marked difficulty in subtracting serial sevens from one hundred or in remembering numbers with even no more than four or five digits in them. The period of confusion is usually followed by what we may call stupor, and the stupor finally progresses into coma itself. It has been reported on occasion that patients going into hepatic coma have also been quite agitated and some even have hallucinations.² Although the majority of the patients will show a decrease in the state or level of consciousness, there are then some patients who quite contrarily will show an agitated state rather than a depressed state of consciousness, and these patients may even verge on the maniacal. Somewhere between the time that the patient first shows signs of confusion and drowsiness and the time that they become stuporous, one is generally able to elicit a rather helpful physical sign referred to as a "flapping tremor". In this circumstance, if the patient is asked to extend the arms and to hold the extended arms before him in a rigid fashion, he will develop a flapping to and fro jerk at the hand, at the wrist, and also at the fingers,

which seems to be very characteristic of patients going into hepatic coma and of those who are in hepatic coma to the extent that they are able to obey commands. However, even those who are unconscious, if the arm and hand are extended, they will sometimes demonstrate this flap. This sign may also be seen in the lower extremities when the leg is fully extended. Finally, there may be marked exaggeration of the tendon reflexes with extensor plantar reflexes and in some cases even convulsions will ensue terminally to complete the clinical picture of coma. The patient dies as if in a deep sleep. The development of the full neurological syndrome may take anywhere from a few hours to several days, and thereafter last as long as two weeks before death finally ensues. It is, however, somewhat unusual to see a patient in coma for much *more* than two weeks who might then possibly survive the episode. A certain number of patients will survive one or more episodes of hepatic coma and apparently spontaneously recover their normal state as far as their nervous systems are concerned, or at least in so far as manifestations of any disease involving the nervous system is concerned. In a considerable number of such patients the flapping tremor, if you will, may often be one of the last signs or indications of the hepatic coma and the derangement of consciousness and motor function to leave the patient. This characteristic of the stupor and even somewhat more rarely of the coma to undergo spontaneous remission, therefore, would seem to place this phenomenon of hepatic coma in the same category as the episodic stupors of hypoglycemia, acidosis, uremia, hypokalemia and Addison's disease.

Finally, we may say that the cerebro-spinal fluid in hepatic coma shows no characteristic abnormality unless the patient is intensely jaundiced, in which case the fluid may be slightly tinged by bilirubin. There is generally no increase in the number of cells in the cerebro-spinal fluid nor in the level of the protein, nor is the cerebro-spinal fluid pressure elevated. There are rather characteristic electro-encephalographic changes found in patients with hepatic coma which I shall not attempt to describe here.⁷

A syndrome that is indistinguishable from impending hepatic coma and which consists of the typical disturbance of consciousness, the flapping tremor and other neurological signs has been produced along with the typical electroencephalographic patterns in patients with advanced cirrhosis by the administration of certain nitrogenous substances.⁸ McDermott and Adams⁵ have produced a similar syndrome which they termed episodic stupor in a

patient with an Eck fistula by the administration of excessive amounts of protein, urea, ammonium chloride and ammonium and potassium cation exchange resin. Although knowledge of the metabolism of ammonia in humans is incomplete, it is known that an adequately functioning liver is essential in mammals for the elimination of ammonia; and here we are presented with two situations: one in which the liver is diseased and particularly incompetent as far as its functions with regard to ammonia is concerned, and, secondly, where the liver is bypassed in the case of an Eck fistula and the ammonia that is in the portal system, presumably some of it coming from urea splitting organisms in the gut itself, is re-circulated in the systemic circulation. Both cases have in common excessive amounts of circulating ammonia, although for different reasons. Although as long ago as 1922 Matthew³ had suggested that it might be ammonia in the blood that produced the stupor in dogs with Eck fistulas given high protein diets, this entire concept has not attracted a great deal of interest until recent years when work such as that referred to re-stimulated the general interest in the relationship of proteins and ammonia to hepatic coma. It is now a rather well documented clinical fact that patients with severe liver disease who are given large amounts of protein in their diet or large amounts of ammonium chloride or other substances rich in ammonia may be expected in many cases to develop the syndrome of impending or well-developed hepatic coma. Daily doses of ammonium chloride, for example, varying from 4 grams to 14 grams per day have been seen in isolated instances to be followed by the development of the typical stupor and flapping tremor in patients with severe liver disease, only to be followed *in turn* by complete remission after elimination of the ammonia rich substance.⁸ This is indeed interesting in view of the extensive use of ammonium chloride as an oral diuretic in patients with severe liver disease having also ascites and edema, and I am sure that all of us have seen cirrhotics in various stages of their illness given ammonium chloride for this reason without any observable untoward effects at all. Other patients have been observed to go into hepatic coma following a diet simply rich in protein, containing, for example, 125 grams a day of protein primarily as meat. The same story appears to be true for ammonium potassium cation exchange resins given in large doses and also for the administration of urea orally. In order to correlate, and also perhaps to explain the phenomenon of hepatic coma in patients with severe liver disease who were given substances rich in

ammonia, the levels of ammonia in the blood have been measured as free ammonia, as well as nitrogenous substances in the blood capable of releasing ammonia in patients who are normal, patients who have severe liver disease, and, finally, in patients who are in hepatic coma. This is referred to as ammonia-N. Davidson's group at the Boston City Hospital, in 1953, reported the blood ammonia levels expressed as micrograms of ammonia nitrogen per milliliter of whole blood in 22 patients with severe liver disease⁹ and found, comparing them with normals, the following: That normal patients, or, that is, patients without liver disease, had a mean value of 2.04 micrograms per milliliter. The patients with cirrhosis but no neurologic complications had a mean level of 2.74 micrograms per milliliter. They found a mean level in impending coma was 4.32 micrograms, and in coma to be 6. However, they also noted that individual values ranged from normal to highly elevated levels and that in serial observations the correlation between the level of blood ammonia and tremor and the state of consciousness was far from perfect. In 1954 they¹⁰ reported ammonia studies on 10 normals, 10 patients with cirrhosis, 13 patients with cirrhosis and impending coma, and 13 patients with cirrhosis in coma. In the last paper their values were 1.3 micrograms ammonia nitrogen per milliliter for normals, 2.2 micrograms for cirrhotics without neurological complications, 2.6 micrograms for impending coma, and 3.5 micrograms for patients in coma. In the case of McDermott and Adams' patient with the Eck fistula,⁵ the correlation between the periods of stupor and the levels of the blood ammonia were much better. Their range of normal for blood ammonia nitrogen was from about 29 micrograms per cent to 60 micrograms per cent and they were able to observe rises in blood ammonia to levels of 300 and 6000 micrograms per cent with the onset of stupor after the ingestion of large amounts of ammonia rich substances. Although there was an excellent correlation between the onset of stupor and the rise of the blood ammonia with the onset, the blood levels fell off rapidly after the high ammonia or high protein containing compounds were stopped. *However imperfect* the results of these and other studies may be, there is nevertheless a very suggestive correlation between the levels of blood ammonia and the onset of hepatic coma in patients with either severe liver disease or with a venous bypass of the liver who are given diets or *medications* rich in ammonia containing substances.⁵⁻¹¹

Because glutamic acid is known to be oxidized by the brain¹² and may enter the Krebs cycle as alpha

cent.¹⁸ The next barrier is the cell membrane which can also exert a selective influence on ammonia. It has been shown that the cerebro-spinal fluid is devoid of ammonia after electric shock convulsions which are known to raise the intracellular ammonia several-fold in the brains of rats.¹² Further barriers exist within the cell, such as the mitochondrial and presumably the microsomal membranes. It is important to remember that when we study brain slices we have removed the blood brain barrier, that hemogenates no longer have the cell membrane barrier, and that extracted enzymes lack even the barriers around the intracellular particles.

But what about glutamic acid clinically in hepatic coma. Walshe¹⁹ has reported the administration of glutamic acid intravenously to 3 patients in 5 episodes of coma. The results were good in every case except one, which was a failure, and on one occasion the withdrawal of glutamic acid therapy appeared to precipitate coma. Other patients have been given glutamate orally and some with quite surprisingly good results. I recall a female cirrhotic who was stuporous and given 5 grams of sodium glutamate 3 times a day who within 24 hours became quite alert and who, when the medication was discontinued, again became stuporous. This procedure was repeated several times. It was finally found that she could be sent home as long as she stayed on glutamic acid and was perfectly capable of caring for herself but, as soon as the medication was stopped, would revert to a stuporous or semi-comatose condition.

In summary, I hope that I have been able to make the following points:

- (1) That patients with severe liver disease who are exposed for one reason or another to large amounts of ammonia containing substances, whether they come in the diet as protein or as ammonium chloride medication, are subject to hepatic coma for this reason.
- (2) That the solution to this problem, and so many other problems that we are now faced with in medicine, are to be found biochemically and that we are in an age when biochemistry is an active and necessary adjunct to the understanding and the treatment of disease processes at the clinical level, and
- (3) That there is good evidence to support further investigation and use of glutamic acid or its salt glutamate in the treatment of patients with hepatic coma in conjunction with the routine therapy well-established.

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Chronic Illness in Virginia

Some Observations on the Problems

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IT IS currently estimated that there are 28,000,000 persons chronically ill in the United States; 4,000,000 are invalids. With these astonishing figures in mind, we must also consider the fact that there are more than a million persons reaching the age of 65 years of age this year and increasing each year. In more understandable figures one person in six is chronically ill and more than a thousand persons become 65 years old every day between sunrise and sunset. For emphasis, there is no prospect of any lessening of the old age load. It is little wonder that chronic illness has come to assume a major role in the problem of medical care.

A definition of chronic illness, be it physical or mental, has been defined as any illness extending beyond the acute period of thirty days. It may involve any age. In the light of the above statistics, it appears that a re-definition might be in order, or else the problem will be too big to comprehend and dim any possible solution. The chronic illness with which we are concerned is that *which requires continuing medical care in some degree beyond the usual acute period of a month's duration*. In some measure, this will reduce the problem to a workable one.

Although chronic illness is essentially a medical problem, because of its cost and the diminishing income of the patient, the individual will be compelled in many instances to seek the aid of public welfare. In fact, a large number of the chronically ill persons will look to the fields of medicine and welfare for assistance, direction and care. The two agencies must work together and share responsibility.

The many facets of the problem of chronic illness have to be evaluated in each case, i.e., as to diagnosis, prognosis, treatment and rehabilitation, with the cost of medical care usually the biggest problem. It must be borne in mind that the medical point of view to bring some degree of comfort, hope and in general to keep up the morale is the function of the family physician, or the physician who is in charge. There is no escaping the responsibility that comes with these people, who are sick.

It is the family physician who will determine what

is to be done, in treatment at home—and that is the best place in the world for the chronically ill and the aged—and when he cannot longer be cared for at home, the patient must be directed by the physician to the proper place for such care as he may require. There is no agency that is in position to do this so well as the family physician. He knows the patient and he knows the patient's economic status and can advise the best plan to follow, in keeping with the needs and finances of the individual.

It is the generally accepted medical thinking, and we repeat this, the chronically ill will do better at home in their own home surroundings than elsewhere. They should be kept at home in some areas with additional services of nursing aid, housekeeping aids and other assisting aids to make it possible for families with small homes, where all the adults are working, to keep the sick person in his own quarters. It is our belief that the aged and chronically ill should be kept at home in every case if possible. It will require sacrifices and patience, but the returns, in satisfaction for having done the decent things, will compensate.

Beyond this point, the facilities for the care of chronic illness may be determined by the need and the patient's finances. The level of medical service required should be explored in each case, and adapted on the basis of ability to pay. Once more the family physician is in the key position to determine what should be done.

Domiciliary care is a more pleasing name for a good boarding house, and many of the chronically ill without homes or folks to care for them find their way into such quarters. It is a very good arrangement to a certain point. It brings people of the same age group together, keeps the patient in charge of his own affairs, and keeps up his interest in things which concern him.

The nursing home implies added nursing care. In Virginia there are 150 nursing homes which care for 3,000 people. This is no small item in medical care, nor is it a small item in investment, and one that should be encouraged to become better in services. There are some prospects that these operators will set up for themselves some minimum standards,

Presented at Mid-Tidewater Medical Society as a progress report on July 19, 1955.

Received for publication, August 18, 1955.

which will bring them into a more desirable position, and eliminate the homes that may not be up to standard. They have for many years afforded services to the chronically ill and will do so in the future, and better it is certain.

The Chronically Ill Hospital or Facility fills in a gap between the nursing home and the General Hospital. It has facilities, such as a physician in charge, internes, graduate nurses, and a close affiliation with a General Hospital, to operate on the proper level. It has some of the equipment, and renders some of the simpler services that are to be had in a General Hospital, but without the highly specialized ones, such as operating rooms, radiology and specialty equipment. A consulting staff of specialists is another feature, which may be called upon when required.

The purpose of the chronic ill facility is to offer the patient needed service at a rate compatible with his income or that of his sponsor. The public assistance cases have to be cared for within the amount allowed by the Public Welfare Boards, and the private cases on a basis as low as they might have at home. The facility looks to the day when its offering in services to internes will further prepare them to enter the field of medicine.

The General Hospital has been relied upon in the past to care for many of these cases of chronic illness, but today the cost of a hospital bed is beyond the means of many for a prolonged period. Besides, the General Hospital is dedicated to surgery, obstetrics, and short term illnesses and emergencies, and the present shortage of rooms leaves little in the way of beds for a chronic case. It appears to be a partial solution to over-crowding in the hospitals; one bed used by a patient for ninety days will take care of many for shorter periods.

This brief review of the Chronically Ill Problem leaves little doubt in any one's mind that it is in need of more emphasis. Further, it is a question of getting prepared for an over-load such as follows a catastrophe, and there certainly seems to be no prospect of lessening the load in the years ahead,

if the older age groups continue to increase. It is a continuing and increasing burden on both medicine and economy.

The answers to the problem have been suggested by the studies made by the commission on Chronic Illness which was established in 1947. It was on the basis of findings in many states that the commission has suggested some solutions. Some of the suggested solutions are already in operation in this area, but other parts of Virginia are not so fortunate. The members of this society are all general practitioners, and all of us have any number of chronically ill cases with which to deal. Some of them can be kept at home, some go to nursing homes, and some to the Patrick Henry Hospital for the Chronically Ill. In some parts of the state there are no places that the chronically ill can go. Many of the senile have been placed in the mental institutions, and there they remain, for few of them do not show mental changes. The prevention of chronic illness might occupy the interest of the Public Health, since the infectious diseases are well controlled, and it will give them a permanency of occupation.

To advocate a program at this time without more information of the needs would be foolhardy. This problem can well become costly. Any movement to really solve the problem should be predicated on a more extensive study of the whole at the state level. To this end, it seems it would be desirable to set up pilot studies for Chronic Illness, made up of the fields of medicine, Public Health and Welfare, with sufficient authority to study, to guide and to help direct localities in any effort they might initiate to provide care for the Chronically Ill.

The current General Assembly should, of course, set up funds to match the subsidies under the new amended Hill Burton Act, for Nursing Homes, Chronically Ill Hospitals, etc.

A well studied program is advocated for the state in the end to forestall the Federal Government moving into this field with its paternalistic ideas, which will be the final blow.

Hydrocortisone in Arthritis

Treatment of Case Complicated by Duodenal Ulcer

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THIS case report is that of a 72 year old white female who carries the diagnoses duodenal ulcer with symptoms of 20 years duration, psoriasis for 30 years and a so-called mixed arthritis of finger joints, wrists, elbows, shoulders, knees, ankles and back also of 20 years duration. The arthritic picture was characterized by an intermittent nature, tender enlarged joints, soft tissue swelling, limitation of motion of varying degrees (even some ankylosis). This picture, occurring in a heavy-set individual over the age of 40—a cheerful optimistic person—should, I think, be honored as a separate clinical entity, not simply as a mixed arthritis.

Mrs. L., the patient, has a 52 year old daughter, who has a similar but less severe arthritis than her mother. Both patients feared that the daughter's incapacitation would be the similar to her mother's which was near invalidism.

Both patients had had excellent treatment for their arthritis. However, we will concern ourselves mostly with our 72-year old victim who had had repeated courses of salicylates, physiotherapy, vitamins, a prolonged course of gold, small doses of terramycin for about one year, and a short course of colchicine, all with discouraging results. Specific treatment for the ulcer was initiated about one year before the course of management that we will discuss, but the patient's symptoms persisted. The ulcer and the psoriasis both became worse when the arthritis was most troublesome.

Similarly, the treatment of the daughter's arthritis had been unsatisfactory. About 20 months ago we hesitantly placed the daughter on hydrocortisone, knowing, of course, that if she improved we would be confronted with the much more painful case of the mother and the relative contraindication to the use of the medication in a patient with peptic ulcer. The daughter's response was dramatic, while the complaints of the mother increased. Although there was no objective evidence of change in the arthritic process, there was definite evidence of increased activity of the ulcer. Presumably, this was the result of the patient's knowledge that hydrocortisone was

contraindicated in her particular case.

At this time the patient was placed on an extremely rigid ulcer regime, partly to learn her ability to cooperate in carrying out details, and partly to give more time for study and thought. The regime, which was continued for one month, consisted of carefully selected foods alternated with antacids hourly during the waking hours, and every two hours during the night, and belladonna every six hours continuously. She was also given 60 grains of sodium salicylate (enteric coated tablets) each day. At the end of the month both the ulcer and the arthritis were practically unchanged. The patient appeared to have followed instructions very carefully.

During the same month several highly recognized physicians with special interest in arthritic disease were consulted but the use of hydrocortisone was unanimously condemned for this particular patient.

By this time it was evident that a "last ditch" situation had been reached. Because of the complex family circumstances and the disease peculiarities of this particular patient, it became necessary to reconsider a trial of hydrocortisone with full knowledge of the serious contraindications that existed.

The possible serious consequences of treating Mrs. L. with hydrocortisone were again carefully explained. The frightening threat of silent perforation was particularly emphasized but the patient and the family were very anxious to risk the dangers in the hope of some benefit to the patient.

On April 26, 1954, Mrs. L. had a complete physical examination, was weighed, had a complete blood count and urinalysis. The physical examination revealed in addition to the arthritis, a very tender area just to the right of the umbilicus and slight epigastric tenderness which was in keeping with the X-ray diagnosis of duodenal ulcer. The patient was placed on 40 mgm. of hydrocortisone per day, the ulcer regime was altered sufficiently to provide a low sodium-high potassium diet, and she was instructed to record carefully her daily fluid intake and output. She was also instructed to help to the best of her ability about the home and dairy farm.

Subjective complaints, blood pressure readings

Presented at annual meeting of The Medical Society of Virginia, Richmond, October 16-19, 1955.

and examination of the joints and abdomen, weight, urinalysis and daily fluid intake and output were evaluated at the time of each visit. Hemoglobin values were obtained at frequent intervals. The patient was seen daily for two weeks and at increasing intervals thereafter.

Within 48 hours of the first dose of hydrocortisone, the patient experienced considerable relief in her joints (and was able for the first time in months to flex her fingers around the arm rest of her chair). But the ulcer picture was unchanged. After 12 days of hydrocortisone (during which time the dosage was decreased to 20 mgs. per day) the patient was without joint pain much of the time, the swelling of the fingers was greatly reduced, and mobility in all joints was moderately increased. For the first time in well over a year the patient was entirely free from ulcer symptoms, and, what was more significant, there was only slight tenderness to deep palpation over the duodenum, and this had disappeared by the end of four weeks.

For the next 14 months, the patient was maintained on daily doses of hydrocortisone, ranging from 20 to 30 mgms. depending largely on the weather. The dietary regime for the ulcer was gradually relaxed as the patient improved, but four meals per day were maintained throughout the course of hydrocortisone. Belladonna and antacids were discontinued after one year when it was felt that they were no longer necessary. During the same period the patient's ulcer history was excellent. She had a few episodes of epigastric pain which she attributed to dietary indiscretion. There was no abdominal tenderness during any of these episodes.

Toward the end of the 15 month period, the patient was taking charcoal, etc. as her only gastro-intestinal medication, charcoal tablets for gas. X-rays, prior to the hydrocortisone, one month later, and one year later, showed deformity of the duodenal bulb.

The joint picture was greatly improved at first,

but exacerbations still appeared and at times the joints were very painful on less than 30 mgms. of hydrocortisone per day. (I felt that the risk of increasing the dosage was not warranted.) After 15 months of therapy, hydrocortisone was discontinued. During the course of hydrocortisone therapy there were no untoward side-effects either subjectively, on physical examination, or in the laboratory studies.

After hydrocortisone was discontinued, the arthritic complaints increased, but for two months now the patient had been fairly comfortable on Atabrine therapy. Peptic ulcer symptoms have not recurred in the 3½ months since hydrocortisone therapy was omitted.

In conclusion, I would like to re-emphasize a few points:

1. It is my opinion that the type of arthritis represented in this case should be separately classified as it does not fit the picture of either rheumatoid or hypertrophic arthritis, and particularly because of the persistently optimistic attitude of the patients.
2. If a main aggravating factor of an ulcer can be eliminated, the ulcer becomes much more susceptible to a medical and dietary regime.
3. A great part of the success in the management of this case, I feel, is due to the fact that the patient was managed at home and was kept actively at work she knew was essential to the maintenance of the family.
4. A peptic ulcer need not be an absolute contraindication to the use of hydrocortisone. Like so many other medications, its risk must be evaluated in terms of the total picture of the individual patient.
5. I would like to stress again that the risk of the use of hydrocortisone in this patient was clearly understood by the patient, the family and myself.

"Remember, this is an important year for the AMEF and medical education. If each and everyone of us are going to affirm our belief in the high standards which are now taught in our medical schools; if you and I are going to stand up for our beliefs, then you and I must sit down and give."

—ELMER HESS, M.D., *President*
American Medical Association

The Motor Innervation of the Urinary Bladder in Animals and Man

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SYMPATHETIC NERVE SUPPLY

THE sympathetic nerve supply to the bladder is derived from the lower thoracic and upper lumbar segments of the spinal cord. Pre-ganglionic fibers traverse the ventral spinal roots and white communicating rami to terminate in lumbar and sacral sympathetic trunk ganglia or associated plexuses of the abdomen and pelvis. Post-ganglionic sympathetic neurons have their cells of origin in the lumbar and sacral sympathetic trunk ganglia, and in the ganglia associated with the celiac, aortic, inferior mesenteric, hypogastric, and pelvic plexuses.

The abdominal aortic plexus is situated between the superior and inferior mesenteric plexuses. It is continuous above with the celiac and superior mesenteric plexuses and below with the inferior mesenteric and hypogastric plexuses. In the cat¹⁴ the abdominal aortic plexus consists of two strands of fibers which descend along the lateral surfaces of the aorta and communicate with one another across its ventral aspect. This plexus may receive the lumbar splanchnic nerves which consist of three or four strands arising from the third to the sixth lumbar segments of the sympathetic trunks⁴⁰. Kuntz and Moseley²² found that the lumbar splanchnic nerves in the cat do not join the aortic plexus but enter either the inferior mesenteric or hypogastric plexus. In man the abdominal aortic plexus is often referred to as the intermesenteric plexus or nerves.⁶^{16,24,35} Sometimes just the inferior portion of the aortic plexus is called the intermesenteric^{4,20}. The aortic plexus in man has connections similar in most respects to those in the cat. It occasionally receives the least splanchnic nerve³⁵ in addition to the upper two or three lumbar,^{20,24} although Coates² believes

that the lumbar splanchnics enter the inferior mesenteric plexus directly. Others,^{6,30,31,32,35} however, are of the opinion that the lumbar splanchnics by-pass the inferior mesenteric plexus and communicate directly with the superior hypogastric plexus.

The inferior mesenteric plexus usually surrounds the inferior mesenteric artery, forming a ring of nervous tissue which encircles the blood vessel.^{14,22,27} The inferior mesenteric plexus receives contributions directly or indirectly from the abdominal aortic plexus, the least splanchnic nerve, the lumbar splanchnic nerves, and the celiac and superior mesenteric plexuses. The inferior mesenteric plexus, in both animals and man,^{14,22,41} receives the celiac roots of the celiac plexus. In the cat¹⁴ a stout fiber bundle from the celiac plexus descends along the anterior aspect of the aorta in company with its fellow of the opposite side. In man⁴¹ the arrangement of the celiac roots is much the same as in the cat. Frequently the roots receive contributions from the least splanchnic nerve. Occasionally the celiac roots by-pass the inferior mesenteric plexus to connect directly with the hypogastric plexus³⁰.

Ganglia associated with the inferior mesenteric plexus have been described for both animals and man. In the cat the ganglia are generally three¹⁴ or four^{22,27,37} in number and are located around the inferior mesenteric artery. In other animals, such as the dog, rabbit, guinea pig and monkey, a similar arrangement of the ganglia has been described⁴¹. There are generally one or two ganglia in the rabbit, and from one to five in the dog¹². An accessory inferior mesenteric ganglion, located one to two centimeters below the inferior mesenteric artery, has been described¹².

In man^{20,41} the inferior mesenteric ganglia are of small size, are enmeshed in the inferior mesenteric plexus, and are scattered throughout the plexus surrounding the inferior mesenteric artery⁴¹. Some have doubted the existence of such ganglia in man^{6,30}. Coates² speaks of them as rudimentary, and Learmonth³⁰ is of the opinion that either there are no ganglia corresponding to the inferior mesenteric

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A complete Bibliography is included in reprints of this article, which may be obtained from the authors.

Received for publication September 19, 1955.

This investigation was supported in part by a Veterans' Administration Contract, with the advice of the Committee on Veterans' Medical Problems of the National Research Council and by a research grant No. B-704 from the National Institute of Neurological Diseases and Blindness, of the National Institute of Health, Public Health Service.

ganglia of animals, or at least the ganglia, if present, are small and are of little physiological importance.

The hypogastric plexus in both animals and man connects the abdominal aortic and inferior mesenteric plexuses with the pelvic plexus. This region of the sympathetic nervous system has a rather confused terminology. In the cat most workers^{14,22,27} refer to it simply as the hypogastric nerves which are continuous superiorly with the inferior mesenteric plexus and inferiorly with the pelvic plexus. In the dog Griffiths¹¹ described the hypogastric as a long slender grey nerve which descends into the pelvis from the abdomen in front of the bodies of the lumbar vertebrae to join the pelvic nerves in the formation of the pelvic plexus.

In man the upper part of the hypogastric plexus has often been called the superior hypogastric plexus. According to Davis,⁶ this name was first used by Sappey, who, like Haller, described it as a continuation downwards of the pre-aortic plexus. Latarjet and Bonnet²⁹ applied the term "pre-sacral nerve" to the superior hypogastric plexus because they believed it passed over the promontory of the sacrum and ran down over that structure². Recently, one of us (L. L. J.),¹⁶ in studying a series of dissections of cadavers, found that the superior hypogastric plexus was over the fifth lumbar vertebra and traversed the inter-iliac trigone rather than being in a more inferior position as described by Latarjet and Bonnet. Other appellations,⁶ such as the great hypogastric plexus, inferior aortic plexus, aortic plexus, lumbo-aortic plexus, ilio-hypogastric plexus, as well as other terms,⁹ have been given to this plexus. Hovelacque,¹⁷ as did Delmas and Laux⁷, regarded the superior hypogastric plexus as a continuation of the inter-mesenteric plexus below the inferior mesenteric artery. In addition to having direct connections with the inferior mesenteric plexus, the superior hypogastric plexus receives rami from the lumbar sympathetic ganglia as well as direct connections from the outer bundles of the abdominal aortic plexus.^{16,20,24,30,31,32,35}

Some workers^{8,10,35} divide the remainder of the hypogastric plexus into a middle portion, called the hypogastric nerves and an inferior division, termed the inferior hypogastric plexus. According to these workers the hypogastric nerves are formed by the bifurcation of the superior hypogastric plexus and usually consist of two or more parallel bundles of fibers. They call the fan-like expansion of the hypogastric nerves at their inferior extremities the inferior hypogastric plexus which in turn makes con-

nections with the pelvic plexus. Other investigators^{1,5,6,9,24,30} have made no clear distinction between the inferior hypogastric plexus, and the hypogastric nerves. Furthermore, they consider the inferior hypogastric plexus a direct downward continuation of the superior hypogastric plexus. Kuntz²¹ avoids this problem in terminology simply by calling the entire complex the hypogastric nerves and points out that these nerves break up into numerous bundles as they extend into the pelvis to form what he calls the hypogastric plexus.

The pelvic plexus, often referred to in the older literature as the hypogastric plexus,^{35,40} is formed largely by the union of the hypogastric nerves and visceral branches from the sacral nerves. The urinary bladder is supplied directly through the pelvic plexus. In man⁴¹ the pelvic plexus is well developed and its branches are very numerous. Small ganglionic masses occur frequently, especially near the point of entry of the hypogastric nerves. The pelvic plexus is located on each side of the rectum, prostate, seminal vesicles, and the posterior part of the bladder in the male. In the female⁴ the pelvic plexus has often been referred to as the utero-vaginal plexus, the cervical ganglion, or the ganglion of Frankenhäuser of which the hypogastric plexus furnishes the main sympathetic supply.

We mentioned previously that pre-ganglionic sympathetic fibers arise from the lower thoracic and upper lumbar segments of the spinal cord, traverse the ventral roots, spinal nerves and white communicating rami to enter the sympathetic trunks and their ganglia. Many of the pre-ganglionic fibers terminate here. Harris¹⁴ has shown in the cat that approximately one-third of the sympathetic post-ganglionic fibers in the inferior mesenteric plexus arise from sympathetic trunk ganglia. A few post-ganglionic fibers come from the celiac or displaced celiac ganglia. These post-ganglionic fibers, together with the pre-ganglionic sympathetic fibers, enter the inferior mesenteric plexus over the lumbar splanchnic and inter-mesenteric (aortic plexus) nerves. According to Harris¹⁴ one-fourth of the pre-ganglionic sympathetic fibers which reach the inferior mesenteric plexus make synaptic connection with inferior mesenteric ganglion cells while the remainder pass on through to terminate at lower levels. Thus the sympathetic fibers which enter the hypogastric nerves are predominately post-ganglionic but not entirely so.^{14,22,26,27,36,39,40} The pre-ganglionic sympathetic fibers in the hypogastric nerve eventually terminate in relation to ganglion cells in the hypogastric nerve,^{26,27,33,41} in the pelvic plexus^{22,40} or in the wall of the bladder

itself³⁶. Moseley³⁶ has found that more than forty per cent of all of the nerve cells in the wall of the bladder receive terminations from sympathetic pre-ganglionic fibers. According to Moseley, this is contrary to what others have reported^{18,38}. Kuntz and Saccomanno²³ have shown that sympathetic fibers occur in all portions of the bladder wall in far greater numbers than would be required for the innervation of the blood vessels alone. On the other hand, Langworthy and Murphy²⁸ were unable to find any evidence of degeneration of motor terminations on the detrusor muscle following section of post-ganglionic sympathetic fibers. They concluded that parasympathetic fibers innervated the smooth muscle of the bladder exclusively.

PARASYMPATHETIC NERVE SUPPLY

The urinary bladder receives its parasympathetic innervation by way of the pelvic roots which arise from the medial aspects of the anterior primary divisions of two or more sacral nerves. In the cat^{22,25} most of the pelvic nerve fibers arise from the second and third sacral nerves with variable contributions from the first and third sacral nerves. These fibers, which number from twelve to twenty-four in the cat, join the hypogastric nerves to form the pelvic plexus²⁶. In the dog¹¹ the pelvic is a small white nerve which arises usually by a large root from the second sacral nerve and a small root generally from the first but often from the third sacral nerve.

In man Latarjet and Bonnet²⁹ found that both the second and third sacrals contribute fibers to the pelvic nerves. Harman¹³ and Heimbürger *et al.*¹⁵ are of the opinion that the third sacral nerve contributes the dominant parasympathetic supply with some variation of the fibers from the second and fourth sacral nerves. The latter authors found contributions more often from the second than from the fourth sacral. Occasionally the first sacral nerve in man sends fibers to the bladder².

The pelvic nerves usually consist of from four to ten small fibers in man but sometimes one or two larger nerves are present³⁵. According to Griffiths (dog)¹¹ and Ashley and Anson (man),¹ the fibers of the pelvic nerves separate into three groups as they pass into the bladder wall: (1) an upper group to the fundus to the bladder; (2) a middle group to the mid-portion of the bladder; (3) a lower group of fibers to the inferior aspect of the bladder, the vesical neck and the adjacent portion of the urethra.

An accessory parasympathetic supply in the human fetus to the urinary bladder has recently been described.^{19,34} It arises from the sacral nerves as they enter into the formation of the sciatic and pudendal nerves or from the pudendal nerve as it courses around the sacrospinous ligament. These nerves reach the pelvic plexus by coursing anteriorly to the inferior gluteal vessels and completely circumvent the usual parasympathetic pathway to the bladder.

Heart Attack Survey

Dr. Paul Dudley White, Boston heart specialist, has asked his colleagues to help him find out how many other Americans have had heart attacks like that of President Eisenhower. In a letter published in the November 12 Journal of the American Medical Association, Dr. White asked physicians to send him information about their own cases of acute coronary thrombosis, which is more in the limelight than it ever was before the President's illness.

He asked the doctors to supply the following:

The number of patients with unquestionable acute

coronary thrombosis in their practices who became ill during the month following the President's attack—Sept. 24 to Oct. 23, 1955, inclusive, the sex, age, occupation, and national origin of each patient; and the length of time between onset of illness and any deaths.

Dr. White asked the physicians to answer even if they had had no cases during the period. He also asked them to give details about patients who became ill with coronary thrombosis before June 25, 1955.

A Note Concerning Endemic Goiter, Dental Caries and Drinking Water

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IT IS well known that the main causal factor in endemic goiter is an insufficient supply of iodine to the thyroid gland. This iodine poverty is found in peoples who depend for their water supply on snow water, or on water that has flowed over mountain soil or soil that has been deposited by glaciers, from which salts have long been leached. Such areas include Switzerland, New Zealand, the northern Rocky Mountain states, the region of the Great Lakes and the St. Lawrence Valley.

Much recent work seems to implicate a shortage of fluorides as one of the several causal factors in dental decay. Since we might expect fluoride poverty under the same conditions as those named above, it would not be surprising to find a higher incidence of dental decay in goitrous areas.

In spite of the numerous dental surveys made in different countries and in different areas of the United States, it is difficult to obtain comparable figures, partly because of the different criteria used. Tables I, II, and III have been constructed from

TABLE I

Per cent of Carious Teeth in different countries

Locality	Age of Subjects	Per Cent of Carious Teeth
New Zealand	5 to 6	48.6%
Switzerland	5	30.6%
	6	34.3%
U. S. A.	5	13.1%

From the Pathology Department, Medical College of Virginia.

¹A Survey of the Literature of Dental Caries. Publication 225. National Research Council, Washington, D. C. 1952.

Received for publication September 30, 1955.

TABLE II

*Per cent of children with decay experience
(Children aged 6 years)*

New York State	25.3	Permanent teeth (decay, missing, filled)
Minnesota	24.3	
Maryland	12.3	
Maryland	19.9	
Md., Ga., Ill., and Mo.	20.5	"With carious teeth"
Switzerland	97	

TABLE III

*Mean caries rates of soldiers from various states,
stationed at a New England camp.*

Area	Decayed and missing teeth per soldier
New England	12.29
Middle Atlantic	11.88
S.E. states	9.32
N.W. states	11.02
Western central states	9.19
S.W. states	8.63

figures taken from "A Survey of the Literature of Dental Caries."¹ They seem to be the only comparable figures that bear upon the problem.

These tables show a higher rate of dental caries (a) in the mountainous Switzerland and New Zealand than in the United States, and (b) in the Rocky Mountain and St. Lawrence valley states than in the other states of the United States.

Although the above facts by themselves do not prove anything, they do add something to the evidence favoring a lack of fluorides as a factor in the causation of dental caries, and they show some correlation between the incidence of endemic goiter and of dental caries.

Give to the AMEF

"The very foundation of health and medical care in this country rests on our high standards of medical education. Therefore, I believe that the support of medical education should dominate our giving program".

—ELMER HESS, M.D., *President*
American Medical Association

Treatment of Glaucoma

BEN H. HINES, M.D.
Hampton, Virginia

A FIFTY-ONE year old white, married, female was first seen in my office January 19, 1954. She stated she was going to see an eye doctor in a neighboring town and she wanted a urinalysis run. She also stated she could see only a little light.

Digital examination revealed that the intra-ocular pressure was markedly increased. BP was 150/100 and urine negative.

This patient was placed on Neohydrin, one tablet daily for three days, and then one tablet weekly; Orgaphen, one teaspoonful after each meal with a little water; Optilets, two after each meal for three days, then one after each meal; and Clusivol, two daily.

The patient was seen again May 16, 1954, at which time she stated she had continued the above regime. She had noted an improved difference in

one or two days and a few days later was able to see a bus for which she was waiting and at this time her vision was back to what it used to be. She further stated that prior to this treatment her vision had progressively failed since October, 1953.

At this time intra-ocular pressure was not remarkable to digital examination. Also Neohydrine was increased to one daily for 5 days, then one three times weekly.

The state of improvement has been so remarkable in this one case, it would indicate further work should be done in the treatment of glaucoma with Neohydrin. Neohydrin would seem to have definite merit if used in these cases before too much damage is done due to pressure and the process is still reversible.

3804 Kecoughtan Road

Received for publication July 26, 1955.

Carbohydrate-Free Diet Impossible

Sugar in concentrated forms should be removed from the diet of a child with severe tooth decay, but other carbohydrates can't and shouldn't be completely removed. A physician consultant for the Journal of the American Medical Association was answering a physician who had questioned the advice of some dentists that "all sweets . . ., including fruits and other naturally occurring sugars," must be eliminated from the diet of caries-susceptible children.

The consultant said in the November 26 Journal that it is virtually impossible to eliminate completely all carbohydrates from the diet. He said one mother "actually was in tears" after trying to prepare such a meal. However, jams, jellies, candy, heavily

sugared beverages, canned (sweetened) fruits and sweetened pastries should be avoided. The consultant also pointed out that caries-susceptible individuals should brush their teeth or at least rinse the mouth thoroughly after each meal, because decay occurs during and for about 15 minutes after eating.

Such caries activity is higher among persons who spend more time eating, either by slow eating or frequent between-meal snacks.

Heredity plays a major role in dental caries, but dietary control is still the only method of controlling the disease.

Such control has resulted in definite reduction of decay in over 80 per cent of caries-susceptible persons.

Social Security—Big Issue in '56

Every physician who is conscious of his duties as a citizen should now be taking an active interest in a timely issue which the American Medical Association considers of great importance—not only to the medical profession but to all of the American people.

That issue is HR 7225, a bill passed by the United States House of Representatives last summer near the end of the Congressional session. This bill, known as the Social Security Amendments of 1955, was first rushed through the House Ways and Means Committee without public hearings. Then it was passed in the House, by a vote of 372 to 31, under a suspension of the rules which barred amendments and limited debate to 40 minutes. The Senate Finance Committee, however, refused to take hasty action on a bill of such major importance. After hearing the many serious questions raised by Mrs. Hobby, then Secretary of the Department of Health, Education and Welfare, the Committee decided to hold extensive public hearings during the second session of the 84th Congress.

Just what is this legislation that appears to be so politically attractive to individuals with an eye on the 1956 elections? Why was the House majority leadership so determined to avoid open hearings and normal debate? Let's take a brief look at the main provisions of the bill.

This is the legislation which would lower the Social Security retirement age for women from 65 to 62; extend monthly benefits for permanently and totally disabled children beyond the age of 18; expand compulsory social security coverage to all self-employed professional groups except physicians, and raise social security taxes over and above the increases already scheduled for the next twenty years. Those provisions alone demand careful study of their effects on the philosophy, scope and financial stability of our social security system.

The most controversial section of the bill, however, is the one which would make permanently and totally disabled persons eligible to receive their social security retirement benefits at age 50 instead of 65. It is this section which is of particular concern to the medical profession. It is of far greater concern than the question of voluntary or compulsory coverage of physicians under the social security system. That is a separate issue which we are not discussing in this editorial. The plan for a national system of

permanent and total disability benefits has far more serious implications for medicine and the nation.

It raises questions such as these: Is there any real need for a federal program? What are the facts on permanent and total disability? Won't this duplicate or overlap existing programs of assistance and rehabilitation? What effect will cash handouts have on a patient's incentive to be rehabilitated? Won't this extend federal control over physicians?—and, finally—How will this affect the future of medical practice? Will this lead, step by step, to the lowering and eventual elimination of the age-50 eligibility requirement; then, cash benefits for the dependents of those who are permanently and totally disabled; then, a temporary disability benefits program; then, cash benefits or direct government payments for hospital or medical costs, and then, ultimately, a full-fledged system of government health insurance?

These are but a few of the many grave questions which already have been raised concerning this legislation. As physicians, we must be concerned over the medical aspects of the problem. As citizens, we also must be concerned over the trends and implications in the never-ending expansion of our social security system. The minority report of the House Ways and Means Committee expressed it this way:

"We do not believe that our committee has discharged its obligation to either the Congress or to the American people by its brief and closed-door consideration of this vital legislation. We have sought to point out the grave social and economic implications of the bill. We have dwelt at some length with the staggering ultimate costs of this developing program, because we do not believe that either the Congress or the public has any conception of its magnitude."

The time has come to face up to the question of just what social security should accomplish and just where it should stop. The Association strongly *urges* that the social security issue be taken out of the arena of vote-catching politics; that there be an objective, thorough study of social security in all its present and future aspects, and that the facts and realities emerging from such a study be used as the basis for a sound national decision on this vital issue. It especially protests precipitate action on the complex question of disability without thorough investigation of alternative mechanisms.

JOSEPH E. BARRETT, MD.

*Commissioner, Department Mental Hygiene
and Hospitals*

Occupational Therapy for Men

In planning a program adequate to the needs of men in a state mental hospital one is impressed that over three-fourths of the prescriptions include as their objectives: an outlet for aggression, stimulation to activity, a plan for resocialization, or some opportunity for creative exploration. In attempting to facilitate these objectives in a practical work situation the therapist frequently finds that for men there is little variety in existing programs and scant provision for aggressive behavior. However, there is always a possibility for not only activity but graded participation within which the patient can be brought to recognition of his own progress. In large group activity, if the emphasis is upon the needs of the specific individual, opportunity for resocialization is present. These large group activities are frequently based upon creative expression. Therefore, if the emphasis is on the individual's need and there is a true cognizance of his place in a progressive scale, his activity can be guided to provide quite extensive creative exploration. Perhaps it would clarify the above statements if a typical large group activity were described.

Upon two year's experience in a state hospital the following evolution was noted. At Easter time in 1953 an outdoor field day event was planned with the theme centered around Easter. All games were modified to emphasize this theme. In other words, the relay races were hopping contests and in a throwing contest plaster eggs were used. Relays employed Easter baskets and colored eggs and an egg rolling contest. The plan was simple and the events were organized largely on a recall basis because all the games had been experienced. There was little participation in preparation except within the Occupational Therapy Shops where a few men were employed in laying out the field, molding the eggs and/or painting them. No participation on the planning level was provided for any patient. Posters and verbal announcements were used to stir up interest on the wards, at the weekly dances, and in the newspaper. However, although the weath-

er was perfect and all the supplies and equipment were ready on time, half of the time was wasted in organizing the groups. The patients came in double lines and tended to remain in this formation. There was no spontaneous participation although the staff as a whole, helped by members of other staffs, worked extremely hard. Some six hundred people were on the field and participated as recipients of Easter favors. Approximately two hundred of the total group actively engaged in any games.

During the following months leading up to the July 4th celebration a different plan was initiated. The Occupational Therapy Staff met and planned the project. Various shops, according to the type and condition of their patients, underwrote definite activities. This program was centered around a rodeo. The men modified games which were housed in ten booths. The entire layout for the whole program was carried on by patients under the direction of shop therapists. The actual frames of the booths were cut and fitted in the Woodwork Shop by men. The work was assigned to each patient on the basis of experience each particular patient needed. For instance, those who needed to externalize their aggression did the sawing, the hammering and driving of stakes. It was observed that two patients with whom no rapport could be established previously, quickly responded to the responsibility of a specific job which they recognized as essential to the completion of the whole. Very sick individuals, who were slow to respond and some who were even at a smearing level of behavior, progressed from lackadaisical dabs at the framework to evident pride in a well painted and decorated booth. Groups of men, who had shown little or no interest in female patients, learned simple square dances in which they showed spontaneous enjoyment upon performance. Some initiated additional activities by making small models. These were incorporated immediately in the general program. One thousand patients attended this performance and of that group six hundred participated upon an assigned basis. This did not take into account that each patient, unless very feeble, had to collect his lunch and select an area where he could enjoy it. It entirely ignored that

Article prepared by FLORENCE E. CLEMENS, Director of Occupational Therapy, Western State Hospital, Staunton, Virginia.

group who, in response to the hillbilly band, danced almost the entire afternoon. The appreciation of the afternoon was expressed in a normal spontaneous manner. It is felt important that out of this type of activity the men, especially during the construction of the booths, laying out the field, building the games, decorating of the booths and assisting with the clean up, were included in a work progress which they recognized as essential and sensible.

One year later, in early preparation for the celebration of the same holiday, the schedule was planned and the theme was accepted by the Occupational Therapy Staff. The shop therapists took the idea back to their individual shops and although there had been a great deal of change in the personnel of the various groups, there was an enthusiastic response on the part of the men who volunteered almost immediate suggestions as to games, events and even the contents of their picnic supper. Perhaps it would clarify the picture of exactly how the individual needs of the men can be met in these large group activities if a case history were briefly outlined. It is readily accepted that these activities in no way solve underlying emotional problems that involve the patient but rather it prepares the climate in which he becomes accessible and can tolerate psychotherapy.

John was a 35 year old man, admitted to the hospital three months before the beginning of this program. He had had one course of thirty-five treatments of electro-convulsive therapy and was quiet enough to be taken to the shop class. He showed no interest whatsoever in taking part in any activity suggested to him. It was found that he enjoyed crossword and jigsaw puzzles. Day after day he would either solve one or assemble the other or simply sit with bowed head facing the wall. Any attempt to attract this man's attention was met by a scowl or a manneristic protrusion of the mouth. If one persisted in getting his attention, it resulted in the patient's urination in his clothes. Indirect attention and efforts to include him in any group activity met with either complete withdrawal or a scowl or a sullen flattening of his expression. In one shop, where a group of six men were discussing the general program for the 4th of July celebration, someone asked: "Are they going to have any dancing this time?". An affirmative answer was given and the

therapist demonstrated one of the steps which produced spontaneous amusement. It was noted that John was watching and, responding to a remark made to him, mumbled "Yes, I can dance". An opportunity was provided for him to be included in one of the dances and although one of the costumes was rather extreme, he showed no resentment to it or to any of the practice periods. It was noted that he learned to recognize his partner and, although she was a very sick person, he took some initiative in placing her in the proper position within the circle. It was soon evident that he was an excellent dancer and he was given additional responsibility for leading the group on and off the stage. This he accepted and would even chat a little with the therapist and with some of the other men. However, most of the time his expression was one of stolid indifference unless the music was playing and the dance was actually in progress. An opportunity was created for him to express his preference as to costume color and this he could tolerate although he initiated no suggestion of his own. In the shop it was possible to approach this patient and elicit response to questions. His posture improved and he no longer found it necessary to face the wall when in the shop. Also he could assume some responsibility for both himself and for others. This was felt to be a distinct improvement over the seclusiveness he had previously demonstrated. Although the activity has long since been over, dancing is still used as a type of treatment. During one session he could accept a suggestion of the therapist that if he could explain to the doctor what was troubling him, the doctor would be anxious to help him. To date there is little carryover of the rapport established, but treatment using this medium is being continued.

The development from a more or less regimented attendance of activities planned for the people in a hospital situation to participation in games and their active contribution upon a planning level is felt to indicate progress. This is found to be encouraging but should also be accepted as a challenge to proceed to the point at which the activity will evolve from the suggestions not made by the staff but rather resulting from group interaction on the part of the men in the hospital.

MACK I. SHANHOLTZ, M.D.
State Health Commissioner of Virginia

Virginia Program for Purchase, Distribution, and Administration of Poliomyelitis Vaccine

When the U. S. Public Health Service asked the State Health Department for its program for the purchase, distribution, and administration of poliomyelitis vaccine to be allocated to Virginia and its use of Federal funds granted under the Poliomyelitis Vaccine Assistance Act of 1955, only three requirements were stipulated to be incorporated in the program. The first of these was that there should be no means test; the second was that there should be equitable distribution throughout the state; and the third was that administration of the vaccine should be confined to the age group or groups designated at the time.

On September 14, 1955, the Poliomyelitis Advisory Committee to the State Health Department, which is the Poliomyelitis Committee of The Medical Society of Virginia, met with the State Health Commissioner to develop the Virginia program to be submitted to the Public Health Service. The executive secretary of the Virginia Pharmaceutical Association was invited to meet with the group and was given voice in all discussions. Since it was believed that Federal funds granted to Virginia would be sufficient to purchase all vaccine allocated to Virginia as it becomes available until February 14, 1956, when the grant expires, it was decided that the State Health Department would purchase all of each allotment as it is released. The representative of the druggists agreed to this because:

1. The amount of vaccine that would be available to the druggists by any other plan would be too small to handle locally.
2. There would be great difficulties in making equitable distribution.
3. There would be too much paper work for the small amount of vaccine that might be handled.
4. There would be too great danger of causing ill feeling because the amount of vaccine received by a druggist would not supply all physician customers.

The State Health Department, therefore, agreed to purchase all available vaccine as it is released. When a sufficient amount of the vaccine will have been accumulated, distribution will be made on the basis

of percentage of population of each area to the designated age group or groups prevailing at the time. The distribution will be made to local health departments where one of three plans, or a combination of them, may be used in administering vaccine. It may be given in regular immunization clinics; it may be used in special, mass-immunization clinics; and it may be distributed to private physicians for use in their offices. In no case can there be a charge made for the vaccine, but physicians can be paid for their services in clinics and they can make a charge for administering the vaccine in their private offices.

It was decided that records will have to be kept and, in order to report the use of the vaccine in Virginia to the Public Health Service, the private physician should report the use of the vaccine given him to the health director of his area. The Advisory Committee further recommended that a physician may receive as much as six 9 cc. vials of vaccine at one time and must report on the use of these before being eligible to obtain additional vaccine. The physician in accepting vaccine agrees to make these reports, to confine its use to the age groups prevailing at the time of administration, and to use the vaccine before the expiration date.

The Committee advised that the public be informed through the press, radio, and television and that the private physician be informed through The Medical Society of Virginia and local medical societies. The health directors will be kept up to date through the State Health Department.

The first distribution of Salk vaccine for this program was made November first when more than 206,000 cc. were shipped to county and city health departments. The Public Health Service had just extended the age group by five years and the Advisory Committee ruled that in Virginia this should be done by adding four years below 5 and one year above 9; the priority age group is now from 1 through 10 years.

Physicians of the remaining four counties without a health department have been notified that the vaccine allotted to their areas is stored in the State Health Department and is available to them on request, as much as six 9 cc. vials at a time.

As more vaccine is released, it will be bought and stored in the State Health Department until the

amount accumulated warrants another distribution.

Recent reports made by the Surgeon-General of the Public Health Service indicate that one dose of the vaccine affords protection against paralytic poliomyelitis and that the more people given one dose now, the more protection the population will have when the next polio season is reached. These reports also indicate that the measures taken for insuring the safety of the vaccine have been successful and that the additional filtration, which has just been required, is another factor to increase our confidence in the safety of the vaccine. Through its use we can hope to reduce poliomyelitis to a disease of minimal incidence.

MONTHLY REPORT OF BUREAU OF COMMUNICABLE DISEASE

	Nov. 1955	Nov. 1954	Jan.- Nov. 1955	Jan.- Nov. 1954
Brucellosis -----	1	2	31	44
Diphtheria -----	7	5	38	33
Infectious Hepatitis -----	42	114	1019	3399
Measles -----	204	83	3999	23611
Meningococcal Infections ----	9	13	87	97
Poliomyelitis -----	11	43	322	596
Rocky Mt. Spotted Fever ----	1	0	46	41
Streptococcal Infections -----	250	263	6180	4270
Tularemia -----	3	1	15	32
Typhoid Fever -----	1	7	43	58
Rabies (In Animals) -----	15	29	347	340

Chemical Poisoning Treatment

Physicians have been advised on methods of treating organic phosphate poisoning, which has become increasingly prevalent in recent years through the misuse of some insecticides. The potential use of these same phosphate compounds as chemical warfare agents also makes it important that physicians become better acquainted with ways of diagnosing and treating such poisoning, two University of Illinois scientists said in the November 19 Journal of the American Medical Association.

The compounds are among the most powerful insecticides yet developed and extensive agricultural use has resulted in many accidents and deaths.

The best known methods of treatment include the administration of the drug atropine sulfate to control nervous system effects; artificial respiration to treat respiratory failure, and general treatment for other symptoms.

In a review of literature on the subject, they found that atropine must be given as soon as possible and in larger than normal doses in order to combat the poisoning. The review of 25 cases showed a direct relationship between survival, the amount of atropine given, and the speed of administration. While an

overdosage of atropine produces certain uncomfortable effects, they are not serious, but the consequences of inadequate treatment for organic phosphate poisoning as grave. Treatment with atropine should tend toward overdosage rather than underdosage.

The effects of the organic phosphates are prolonged and treatment must be continued "vigilantly" until all signs of poisoning are gone. Severe exposure or delayed therapy may result in death.

Other methods of treatment include: application of gas mask and/or removal from the site of the vapors; immediate washing away of any liquid contamination; drainage of excessive bronchial secretions that may block the airway; oxygen administration if necessary; treatment of the eyes with atropine to counteract eye symptoms, and administration of medicine to stop convulsions if they are not controlled by atropine.

The study by Archer S. Gordon, M.D., Ph.D., and Charles W. Frye, M.S., Chicago, of the department of clinical science, College of Medicine, University of Illinois, was supported by a grant from the Army Chemical Center Medical Laboratories, Edgewood, Md.

Current Currents

A BULLETIN from National Selective Service headquarters contains the following information concerning the Armed Forces Reserve Medical Officer Commissioning and Residency Consideration Program:

1. To insure that the Armed Forces will continue to receive medical officers who have had residency training in certain fields, the Director of Selective Service and the Department of Defense have agreed to continue the program known as the "Armed Forces Reserve Medical Officer Commissioning and Residency Consideration Program".

2. This program permits a limited number of regular registrants who are or become medical reserve officers to complete their residency training prior to being called to active duty. To implement this agreement, it is the policy of the Director of Selective Service to recommend the deferment of such registrants who may be selected by the Assistant Secretary of Defense (Health and Medical) for essential residency training under this program.

3. Selected registrants will be certified to the Selective Service System on Request for Deferment for Residency Training (SD Form 247). Upon receipt of this form properly completed, the Director of Selective Service will forward it to the registrant's local board through the appropriate State Director of Selective Service.

THE HOUSE OF DELEGATES of the American Medical Association has approved a program alerting physicians to the implications of H. R. 7225—the Bill which would make possible disability cash payments at age 50.

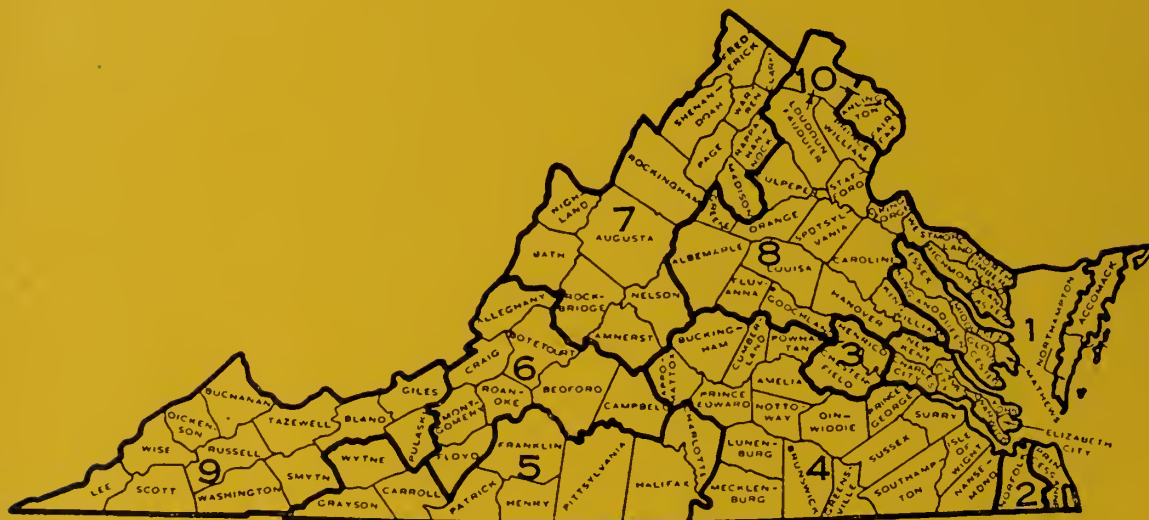
A report of the Board of Trustees notes that AMA's concern is with two parts of the Bill: extension of OASI benefits for totally and permanently disabled children beyond age 18, and provision of OASI retirement benefits for the disabled at age 50, instead of the present statutory requirement of age 65.

The Board declared: "This Bill clearly is another step in the extension of government over the medical profession." This is the way it would come about: By providing a disability benefit as a right through the OASI system, it would subject doctors to government regulations in making disability determinations and rendering rehabilitation services.

In addition, "constant pressure from government, administrators and patients seeking disability certifications would cause increasing harassment of the . . . profession."

A SPECIAL BOOKLET entitled "Federal Income Tax Liability of Physicians" is now available from the AMA's Law Department, 535 North Dearborn Street, Chicago 10. The booklet should be of much assistance in filing income tax returns.

Know Your Congressmen



VIRGINIA CONGRESSIONAL DISTRICTS, 84TH CONGRESS

SENATORS

Harry Flood Byrd (D) Berryville
A. Willis Robertson (D) Lexington

Washington Address: Senate Office Building

REPRESENTATIVES

DISTS.
1. Edward J. Robeson, Jr. (D) Newport News
2. Porter Hardy, Jr. (D) Churchlands

3. J. Vaughan Gary (D) Richmond
4. Watkins M. Abbitt (D) Appomattox
5. William M. Tuck (D) South Boston
6. Richard H. Poff (R) Radford
7. Burr P. Harrison (D) Winchester
8. Howard W. Smith (D) Broad Run
9. Pat Jennings (D) Marion
10. Joel T. Broyhill (R) Arlington

Washington Address: House Office Building

For Better Government...

Get the Facts

Study the Issues

Form Your Opinion

Inform Your Congressmen

1. He should be addressed as Representative John Doe or Senator John Doe—not Mister.
2. Be brief, but not terse.

3. Be specific, positive—don't hedge.
4. Give him the local viewpoint—how the national issue would affect community health, your practice, your patients.
5. Letters should be dignified.
6. And reasonable—don't ask the impossible.
7. But request action—your Congressman was elected to *do* something.
8. Make it *your* letter—on your letterhead, in *your* style.
9. Request an answer—you've told him where *you* stand, now ask him where *he* stands.
10. Be appreciative—thank him for good things he does.

Personalities....



Big Chief
Williams,
His Son
and
Dr. Thompson



A
Likely
Story!

Dr. Ball
Dr. Fisher
Mrs. Ball



Dr.
Lynch
and
His
Harem



The Kings
and their
Queens



Sunny
Side
Up

Mrs. Lowe
Dr. Farmer
Att. Gen.
Almond

Misery
Loves
Company—
Mrs. Flanders
and
Dr. and Mrs.
Emlaw





Four
Horsemen—

Drs. Hancock,
Bailey,
Hamner
and
Hagood



↑
You
Name
'Em

First
Award

Drs.
Bosher
and
Decker



Corporate Practice of Medicine

FOR many years the practice of medicine by corporations has been unlawful in Virginia and all other states. In its search for more revenue, some hospitals have turned to exploitation of physicians in violation of this statute. Thus far radiologists, pathologists, anesthesiologists and physiatrists have borne the brunt of the attack.

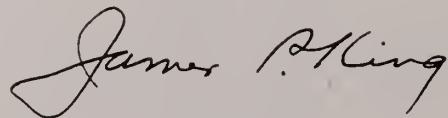
Tensions between lay hospital management and physicians have increased all over the nation. Recently, the Iowa Hospital Association entered litigation against its State Board of Medical Examiners and the Iowa Association of Pathologists, challenging the specialty of pathology as a branch of medicine. The Attorney-General of Virginia adds further confusion through his interpretation excluding radiology from the practice of medicine under the Virginia Medical Practice Act.

The position of the hospital specialist as a practitioner of medicine has been clearly defined by the House of Delegates of the American Medical Association. "The practice of anesthesiology, pathology, physical medicine and radiology are an integral part of the practice of medicine, in the same category as the practice of surgery, internal medicine or any other designated field of medicine."

If hospital administrators are successful in their efforts to alter the law to permit corporate practice of medicine, it is probable that surgeons, internists, pediatricians and other specialists will eventually be hired by the hospital and their services sold at a profit. A battery of general practitioners attached to each hospital would then complete the picture of hospital domination of the medical profession.

It is thus obvious that a proper solution to the problem of the hospital-physician relationship is important to every practitioner of medicine.

As is true in all controversies, there is a need for clear, objective thinking among those who must meet at the conference table to evolve the necessary solution. Then, only in an atmosphere of mutual confidence may these differences be settled.

A handwritten signature in cursive script, reading "James B. King". The signature is fluid and elegant, with a large initial "J" and a stylized "K".

President

Our New Seal

IN THE Fall of 1954, a committee was appointed by Dr. Carrington Williams to bring in recommendations for a seal for The Medical Society of Virginia.

This was not the first reference to a seal in our Society. The minutes of November 12, 1873, quoted Dr. F. D. Cunningham, corresponding secretary, as stating that "he had a seal of the former State Medical Society, and as this Society has not yet adopted any special design for one—though the Constitution calls for a seal—he would place this at the disposal of the Society." This seal had come into the possession of Dr. Cunningham's father when the elder Cunningham was President of the State Medical Society in 1847 and had been laid aside when the earlier organization was discontinued in 1858. All efforts to locate this seal have been unsuccessful.

A cover of the Virginia Medical Monthly published in 1874 showed a small design consisting of a snake entwined about a sun-dial or garden ornament but this appeared to be a filler supplied by the printer rather than an official seal.



At the Richmond meeting of The Medical Society of Virginia last October about a dozen designs were submitted to the Council. These were chiefly adaptations of state and other seals of local interest. By a happy coincidence, a member of the committee had received recently a Greek silver coin minted in Cos during the first century B. C. depicting Aesculapius. This was found to be the earliest known portrayal of this Greek physician. Designs incorporating the head of Aesculapius and also the reverse of the coin, which showed him as a seated figure with a highly individualized serpent, were also submitted. The design showing only the head had the virtue of simplicity. This was recommended by the Council and adopted by the House of Delegates. This seal appears for the first time on the cover of this issue of the Journal.

Aesculapius (or Asklepios) was the Greek God of Medicine. He is said to have

been the son of Apollo and the nymph Coronis. Cheiron, the centaur, taught him the art of healing. His sons, Machaon and Podaleirius, are mentioned in the Iliad as serving in the Greek Army during the Trojan War. More famous was their sister Hygieia, Goddess of Health, whose name continues as a household word to the present time.

Temples were erected to Aesculapius throughout Greece. Case records of those cured by him have been preserved in the form of votive tablets from the fourth century B. C. in his shrine at Epidaurius. His success, in fact, led to his untimely demise, for Zeus, fearful that under his ministrations all men would become immortal, slew him with a thunderbolt.

The design chosen for your Society, therefore, recalls medicine's proud history and it is hoped that we today may prove worthy of our seal and of our heritage.

Society Proceedings

Richmond Academy of Medicine.

The Eye, Ear, Nose and Throat Society of the Academy held its meeting on November 22nd. Dr. Philip Knapp, Assistant Professor of Ophthalmology Institute of Ophthalmology, College of Physicians and Surgeons, New York, spoke on "The Cross Eyed Child".

Southern Medical Association.

At the 49th Annual Meeting of this Association, held in Houston, November 14-17, Dr. W. Raymond McKenzie, Baltimore, was installed as president and Dr. J. P. Culpepper, Jr., Hattiesburg, Miss., was named president-elect. A special "Golden Anniversary Key" was presented to Mr. C. P. Loran, Advisor and Professional Relations Counselor, in

recognition of his 43 years of loyal and efficient service to the Association.

The 1956 meeting of the Association will be the "Golden Anniversary" and will be a conjoint meeting with the Medical Society of the District of Columbia in Washington, November 12-15.

Virginia Obstetrical and Gynecological Society.

At the annual meeting held in Richmond on October 18th, Dr. George S. Hurt, Roanoke, was made president; Dr. James M. Habel, Jr., Suffolk, vice-president; president-elect Dr. Millard B. Savage, Norfolk; and secretary-treasurer, Dr. Chester D. Bradley, Newport News.

Calendar of Coming Events

ANNUAL CONGRESS ON INDUSTRIAL HEALTH—Sheraton-Cadillac Hotel, Detroit, Michigan—January 23-24.

MEDICAL SOCIETY EXECUTIVES POSTGRADUATE SEMINAR—Drake Hotel, Chicago, Illinois—February 6-8.

ANNUAL MEETING OF THE AMERICAN COLLEGE OF RADIOLOGY—Drake Hotel, Chicago, Illinois—February 10.

52ND ANNUAL CONGRESS ON MEDICAL EDUCATION AND LICENSURE—Palmer House, Chicago, Illinois—February 11-14

AMERICAN COLLEGE OF SURGEONS, Regional Meeting—The Bellevue-Stratford, Philadelphia, Pennsylvania—February 13-16.

INTERNATIONAL COLLEGE OF SURGEONS, Regional Meeting—Greenbrier Hotel, White Sulphur Springs, West Virginia—February 13-15.

VIRGINIA CHAPTER OF THE AMERICAN ACADEMY OF GENERAL PRACTICE—The Homestead, Hot Springs, West Virginia—March 2-3-4.

SOUTHEASTERN SURGICAL CONFERENCE—John Marshall Hotel, Richmond, Virginia—March 12-15.

5TH ANNUAL AMERICAN ACADEMY OF GENERAL PRACTICE SCIENTIFIC ASSEMBLY—Armory, Washington, D. C.—March 19-22.

VIRGINIA SOCIETY OF OPHTHALMOLOGY AND OTOLARYNGOLOGY—Convention Cruise to Havana and Nassau (sailing from Norfolk)—May 26-June 2.

Committee on Arrangements.

Drs. Allen Barker and Reverdy H. Jones, Jr., are co-chairmen of the local committee on arrangements for the annual meeting of The Medical Society of Virginia in Roanoke, October 14-17. Other committees are: Scientific Exhibits, Dr. Marcellus A. Johnson, III, chairman; Technical Exhibits, Dr. Alexander McCausland, chairman, and Drs. Theron H. Hass, Harry J. Minarick and Walter A. Porter; Golf, Dr. Rufus P. Ellett, Jr., Chairman, and Drs. C. C. Hatfield and George W. McCall; Hotels and Halls, Dr. Robert S. Hutcheson, Jr., chairman, and Drs. Homer A. Sieber, Robert E. Paine, Jr., Rufus Brittain, and W. R. Whitman, Jr.; Entertainment, Dr. Hugh H. Trout, Jr., chairman, and Drs. J. T. Showalter, W. M. Moir, Charles A. Hefner, and F. Willson Daily; Press and Publicity, Dr. Hugh J. Hagan, Jr., chairman, and Drs. W. Randolph

Chitwood and Charles L. Crockett, Jr.; and Ladies' Entertainment and Auxiliary, Mrs. Edwin J. Palmer, chairman.

Oldest Active Practitioner.

A recent query as to the oldest practicing physician in Virginia revealed the following information.

Dr. Sidney J. Tabor, born August 31, 1867, is in active general practice in Portsmouth.

Dr. Ramon D. Garcin, born September 19, 1867, is a practicing internist in Richmond.

Dr. Halsted S. Hedges, born September 30, 1867, is practicing ophthalmology in Charlottesville.

Dr. J. C. Cutler, born November 9, 1867, is still practicing as a proctologist in Newport News.

Do you know of any doctor who is older than the four listed above—and still in active practice? If so, the Monthly would like to have this information.

Dr. Edward M. Holmes, Jr.,

Director of Public Health of the City of Richmond, has been named president-elect of the American Association of Public Health Physicians, at the meeting of this Association in Kansas City in November. By acceptance of the post, Dr. Holmes immediately becomes a member of the board of trustees of the association and will remain on the board for five years.

American Academy of General Practice.

The Eighth Annual meeting of the Academy will be held in Washington, D. C., March 19-22. There will be twenty-six outstanding speakers discussing subjects ranging from cardiac emergencies to primary wound repair. There will also be more than sixty scientific and two hundred and fifty technical exhibits. The program also includes two live clinics, a symposium on obstetrics, and special tours through the National Institutes of Health at Bethesda.

Dr. Douglas Vanderhoof,

Richmond, has been elected honorary senior warden for life at St. Stephen's Episcopal Church. This is the first time such an honor has been conferred by this church.

State Health Department News

Dr. R. H. Laning retired on December 1 after eight years' service as Director of the Amherst-Nelson Health District.

Dr. Patricia Hunt, having completed three month's orientation given new medical personnel, will assume the duties of Acting Director of the Amherst-Nelson Health District.

Dr. J. K. Farish, Jr., has also completed the usual indoctrination, and has assumed duties as Acting Director of the Fredericksburg-King George-Spotsylvania-Stafford Health District, succeeding Dr. H. D. Crow, who was transferred to the Tri-County Suffolk District.

Dr. Henry C. Evans, having completed his orientation, has assumed duties as Assistant to Dr. Leroy D. Soper in the recently combined Halifax-Pittsylvania-Danville Health District.

T. Duckett Jones Memorial.

Dr. Paul D. Camp, Richmond, has been named chairman of a state committee and a member of a national committee to raise \$150,000 for a memorial fund to honor the late Dr. T. Duckett Jones. Income

from the fund will support outstanding young scientists seeking investigative careers in rheumatic fever and related fields. Dr. Jones was a native of Petersburg, a son of the late Dr. Bolling Jones, a graduate of V.M.I. and the University of Virginia Medical School. He was considered an internationally famous authority on rheumatic heart disease.

Annual Winter Clinic.

The Louise Obici Memorial Hospital, Suffolk, will hold its annual winter clinic on January 18th. The morning program is on The Present Status in the Management of Coronary Heart Disease and the speakers are Dr. Paul Camp, Richmond; Dr. Eugene A. Stead, Professor of Medicine, Duke University; Dr. John A. Boone, Professor of Medicine, Medical College of South Carolina. In the afternoon the subject will be Medical and Surgical Diseases of the Chest. Dr. Sol Katz, Chief of the Pulmonary Disease Division of the District of Columbia General Hospital, Georgetown and George Washington University Schools of Medicine; Dr. Edgar Davis, Professor of Thoracic Surgery, Georgetown University Medical Center; and Dr. Philip Hodes, Professor of Radiology, University of Pennsylvania, will be the speakers.

The Atlanta Graduate Medical Assembly,

Which will be held in Atlanta, February 20-22, promises another excellent speaking faculty and a streamlined and sharpened agenda to incorporate features which have attracted most favorable comment from the doctors who have been attending each year. The speaking faculty will consist of Drs. Philip K. Bondy, Woodbridge, Conn.; Charles C. Harrold, New York; Theodore Winship, Washington, D. C.; Russell L. Dicks, Durham, N. C.; Willis J. Potts, Oak Park, Ill.; Clyde L. Randall, Buffalo, N. Y.; Alexander D. Langmuir, Atlanta; Jack D. Myers, Pittsburgh; Charles H. Hendricks, Cleveland; Ralph B. Cloward, Honolulu, T. H.; Arnall Patz, Baltimore, Ivan L. Bennett, Jr., Baltimore; Meredith F. Campbell, Miami; Philip Thorek, Chicago; Samuel Kaplan, Cincinnati; Wilburt C. Davison, Durham, N. C.; George Saslow, Newton Highland, Mass.; Fred J. Hodges, Ann Arbor, Mich.; and C. Walter Lillehei, Minneapolis, Minn.

Further information may be obtained from the Assembly at 15 Peachtree Place, N. W., Atlanta, Ga.

Dr. J. A. B. Lowry,

Crewe, was doubly honored recently when he

received the second annual Lions Club plaque for good citizenship and he was paid tribute in a program patterned after the television show "This is Your Life". This was participated in by old friends, men he has been associated with in various projects and members of his family.

Fellows of American College of Surgeons.

At the recent meeting of the College in Chicago, fourteen Virginians were made Fellows. They are: Drs. Milton J. Hoover, Jr., Martin Markowitz, and William McC. Eagles, Richmond; Forrest M. Swisher, Arlington; Drake Pritchett, Danville; Wilbur J. Baggs, Jr., and William H. Woodson, Newport News; William E. Byrd and John H. Hill, Norfolk; Charles B. Bray, Jr., and William P. Tice, Roanoke; S. Randolph Penn, Waynesboro; and Lester A. Wilson and M. K. Humphries, Jr., Charlottesville.

National Association of Medical Assistants.



Mrs. Lucy Carwile and Mrs. Doris Paris, Medical Office Personnel Association in Lynchburg, are shown with Dr. John Wyatt Davis, Jr., just before they left for Kansas City, Kansas, on November 4th to attend a two day meeting to create a national association of medical assistants. There were 74 medical assistants registered, representing 17 states. The name of the organization is to be the American Association of Medical Assistants, and the 1956 meeting will be held in Milwaukee. Mrs. Paris will be the Virginia representative and a member of the organizational committee.

Dr. Guy C. Richardson

Bristol, has been honored with the President's Citation for his work in the National Employ the Physically Handicapped movement. This was presented to him for his service in providing medical care and occupational opportunity for the physically handicapped.

Medical and Surgical Symposium.

The Thirteenth Annual Watts Hospital Medical and Surgical Symposium will be held in Durham, N. C., February 8th and 9th. The symposium will be held at the Washington Duke Hotel and speakers will include Drs. Louis A. Krause, Baltimore; James W. Carpenter, Chicago; Harry S. N. Greene, New Haven, Conn.; Stanley O. Hoerr, Cleveland; Albert W. Diddle, Knoxville; S. Gordon Castigliano, Philadelphia; Robert W. Johnson, Baltimore; William B. Castle, Boston; Monroe J. Romansky, Washington. On the 8th there will be a panel discussion on "Recent Advancements in Management of Malignant Disease" and on the 9th there will be clinics at Watts and McPherson Hospitals.

Our readers are cordially invited to attend this Symposium and further information may be obtained from Dr. James E. Davis, 1200 Broad St., Durham, N. C.

American College of Surgeons.

A Sectional Meeting of the College will be held in Philadelphia on February 13-16. This meeting may be attended by any doctor interested. Non-fellows pay a five dollar registration fee, but interns and residents pay no fee. Headquarters are the Bellevue-Stratford Hotel.

Dr. Houston L. Bell,

Roanoke, has recently returned from New York City where he took a special course in rhinoplasty given by Dr. Samuel Fomon.

Medical Officer Needed.

The Federal Civil Defense Administration, Olney, Md., is in need of a full time Medical Officer GS-12 at \$10,065.00 per annum. It is required by the Civil Service Commission that this individual have a Doctor of Medicine degree and a considerable background in Medical Administrative work. He would be located at Olney, Md., and act in the capacity of Advisor to Civil Defense organizations in the States of Maryland, Delaware, Ohio, Kentucky, Virginia, West Virginia, Pennsylvania and the District of Columbia in health problems related to Civil Defense.

The International Academy of Proctology

Announces its annual cash prize and certificate of merit award contest for 1955-1956. The best unpublished contribution on proctology or allied

subjects will be awarded \$100.00 and a certificate of merit. The competition is open to all physicians in all countries whether or not affiliated with the Academy. Entries are limited to 5,000 words, must be typewritten in English, and submitted in five copies. All entries must be received no later than the first of February, 1956, and should be addressed to the Academy at 147-41 Sanford Ave., Flushing, N. Y.

Virginia Nephrosis Foundation

On November 17, 1955, a group of interested people gathered at First Baptist Church, Richmond, in an attempt to form a Virginia Nephrosis Foundation. Forty to fifty people attended this first meeting and decisions made at that time were as follows:

1. To form a Virginia Nephrosis Foundation.
2. To organize a temporary executive board consisting of
 - a. President, Mr. E. S. Hirschler
 - b. Vice-President, Mr. Wallace E. Parham
 - c. Secretary-Treasurer, Mr. L. A. Blackburn
 - d. Medical Advisory Board, Edwin L. Kendig, Jr., M.D. and Thomas P. Overton, M.D.
3. To inform the people of Virginia of such a foundation.
4. To stimulate and secure membership.

The ultimate goal of this foundation is one of better care, study and treatment of nephrosis in Virginia.

Those people who might be interested, please contact Mr. L. A. Blackburn, Richmond Federal Building, Richmond.

International College of Surgeons.

There will be a sectional meeting of the College at the Greenbrier Hotel, White Sulphur Springs, from February 12th to 15th. The profession is cordially invited to attend.

Obituaries

Dr. David Alexander Christian,

Appomattox, died on November 18th, having been in ill health for many months. He was seventy-five years of age and graduated from the Medical College of Virginia in 1908. Dr. Christian was one of the county's oldest physicians and five years ago, the townspeople and medical colleagues unveiled a portrait of him at the courthouse. He had been a member of The Medical Society of Virginia for forty-

For Sale.

Hospital-Clinic. Yes, it is most unusual to find one on the market. But due to circumstances this one must be sold. Here is a grand opportunity for two general practitioners not only to make a lot of money but to render a great service to this community. This hospital has 10 rooms, plus very modern living quarters, brick construction, with beautifully landscaped 2 acre tract, and just about every type equipment you would need, which is practically new. It is available at a sacrifice of \$85,000.00. Financing can be arranged. Contact realtors, L. T. Jonas and J. Hunter Roberts, associated with the firm of Jno H. Windel, Inc., 34 W. Kirk Ave., Roanoke, Va., phone 3-2478. (*Adv.*)

For Rent.

Doctor's office, three doors west of Lee Medical Building, Richmond. Will remodel to suit doctor. Write "Office", care the Monthly, Box 5085, Richmond 20. (*Adv.*)

For Sale.

Suburban properties. Homes and timber lands, located in the vicinity of Richmond and Hopewell. Sound investment opportunities. Call or write W. L. Broadus, phone 844, P. O. Box 479, Hopewell, Va. (*Adv.*)

For Sale.

Complete physicians office equipment, including GE vertical fluoroscope, Cambridge direct writing electrocardiograph, etc. Write "Equipment", care the Monthly, P. O. Box 5085, Richmond 20. (*Adv.*)

Desires Location.

General surgeon desires association or solo practice in city with available hospital facilities. Board eligible, 34, Category IV, university trained including sub-specialties. Available July 1956. Write #55, care the Monthly, P. O. Box 5085, Richmond 20. (*Adv.*)

four years. Five daughters and a son survive him.

Dr. Moncure.

In publishing notices of the death of Dr. P. St. L. Moncure, Norfolk, in the November and December issues of the journal, the Monthly failed to state that Mrs. Moncure survived her husband. We regret that this error was made but we had only the information obtained from the newspapers.

1955 Advertisers

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OUR BEST WISHES
FOR A SUCCESSFUL
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1956

Virginia Medical Monthly

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Therapeutic Food for
Complete Nourishment

THAT MAN MUST EAT to remain well is a concept as old as medicine. But only recently has it been established (1) that nutritional needs are increased in illness; (2) that food sufficient to meet these needs is well utilized, and (3) that therapeutic nutrition prevents many of the debilitating effects of disease and injury.

Unfortunately, because of the anorexia accompanying illness, effective nutritional therapy requires added care on the part of the physician. Food comes from familiar kitchens and lacks the impressive aura of more dramatic therapeutic agents. Thus it is often difficult to convince the patient that food, too, is therapeutic—that although drugs may arrest disease only food can repair the ravages of disease.

Whatever the nutritional problem—whether caused by anorexia, mechanical difficulty in eating or limitation of gastric capacity or tolerance—only an assured food intake will solve it. The use of Sustagen, a food formulated for therapeutic nourishment, will overcome many difficulties in the therapeutic feeding of sick patients. A foundation for therapy thus may be established.

The development of Sustagen exemplifies the continuous effort of Mead Johnson & Company to provide the medical profession with products basic to the management of illness and the restoration of health.

Sustagen® is the only single food which contains all known nutritional essentials: protein, carbohydrate, fat, vitamins and minerals. It may be given by mouth or tube as the only source of food or to fortify the diet in brief or prolonged illness.

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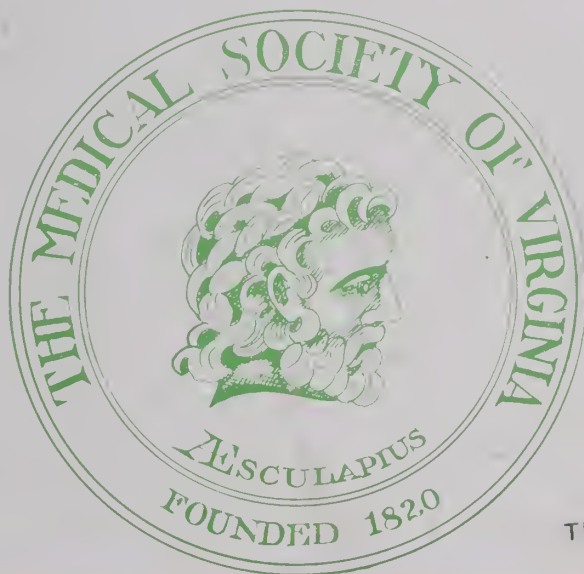
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VIRGINIA

MEDICAL MONTHLY



THE N.Y. ACADEMY
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YOU HAD TO PAY
TWENTY-FIVE DOLLARS
FOR THOSE NEW
MEDICINES?



YES...
BUT THEY SAVED \$900
AND MY
HUSBAND'S LIFE!

YEARS AGO when the physician fought to bring a patient through a siege of pneumonia there was little he could do but help conserve the patient's strength, make him comfortable... and hope for the best.

In fact, the doctor sadly signed death certificates for 33 out of every 100 pneumonia patients he treated. For those who survived, recovery was slow and expenses were high. The cost of an average case was about \$1,000,

including three or four weeks' time lost away from work.

Happily, this grim picture has changed. Under the onslaught of sulfa drugs... and now the antibiotics... pneumonia has steadily lost ground. Now, uncomplicated cases clear up in four to five days. And instead of losing 33 out of every 100 cases, the doctor saves all but a very few.

Just as striking as the cut in deaths and

disability is the cut in the *cost* of curing pneumonia. More and more patients can now be cared for at home. As a result, the average case of pneumonia may cost no more than \$100... including loss of income, the doctor's visits and the "expensive" new medicines!

Today, more than ever before, an investment in prompt and proper medical care may well represent one of the biggest bargains of your life.

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VIRGINIA MEDICAL MONTHLY

(Founded by Landon B. Edwards, M. D., April 1874)

PUBLISHED MONTHLY BY THE MEDICAL SOCIETY OF VIRGINIA

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1105 West Franklin Street

Richmond 20, Virginia

Annual Subscription—\$2.00

Single Copies—25¢

TABLE OF CONTENTS

GUEST EDITORIAL

The Prevention of Tetanus—Edward S. Stafford, M.D. 43

ORIGINAL ARTICLES

Maternal Mortality—Robert A. Ross, M.D. 45

Mixed Mesodermal Tumors of the Uterus—
Hyman Cantor, M.D. 48

Massive Bleeding from Peptic Ulcer—M. H. Todd, M.D. 55

Ambulatory Electro-Cerebro-Therapy—Harry Brick, M.D.,
and Fred L. Finch, M.D. 59

Peripheral Vascular Disease—Nathan Bloom, M.D. 63

General Nutritive Deficiency—Robert M. Jamison, M.D. 67

CORRESPONDENCE

“Hormone Controls Bleeding”—Philip Jacobson, M.D. 72

MENTAL HEALTH

Who Are the Patients in Our Mental Hospitals? 75

PUBLIC HEALTH

Diphtheria Immunizations 77

THE MEDICAL SOCIETY OF VIRGINIA

Delegates to the American Medical Association 79

BOOK ANNOUNCEMENTS

WOMAN'S AUXILIARY 81

PRESIDENT'S MESSAGE

Professional Liability Insurance 83

EDITORIAL

Pro Bono Publico? 84

SOCIETY PROCEEDINGS 85

NEWS 86

OBITUARIES 89

The MONTHLY is not responsible for the opinions and statements of its contributors.

All advertisements are accepted subject to the approval of the Editorial Board.

Second-Class Mail privileges authorized at Richmond, Virginia.

INDEX TO ADVERTISERS—Page 52

There are few subjects on which the general public is more uninformed (or perhaps *misinformed*) than the cost of modern medical care.

People have always grumbled about medical bills—and they probably always will, to some extent. The trouble is they tend to see medical expense as a part of sickness—something that certainly gives them no pleasure—rather than the price of enjoying good health.

But the real economics of the situation—what the patient gets for what he pays—proves that today's medical bill usually turns out to be one of the really big bargains of his life.

The latest Parke-Davis advertisement, reproduced here, cites the amazing decline in the cost of curing pneumonia to illustrate the remarkable value represented by your patient's investment in prompt and proper medical care.

This message will reach an audience of millions of readers in mass-circulation magazines such as *LIFE* and the *SATURDAY EVENING POST*. Reprints, in small folder form, are promptly available to physicians on request.

PARKE, DAVIS & COMPANY *Detroit 32, Michigan*

Guest Editorial

The Prevention of Tetanus

THE clinical manifestations of tetanus, including trismus, risor sardonicus, opisthotonos, and death were known in ancient times. These manifestations result from the action upon the peripheral and central nervous system of the toxin produced by clostridium tetanii. This organism is a spore-bearing strict anaerobe and is found throughout the world. It can be recovered commonly enough from the feces of both humans and animals.

Clinical tetanus fortunately is entirely preventable. The antigenic property of small amounts of tetanus toxin has been known almost since the discovery of the tetanus bacillus and it was this property of the toxin which led to the production in horses and other animals of tetanus antitoxin. Ramon, in 1925, showed that a modified toxin could be used safely in humans to produce active immunity against tetanus toxin. Since this discovery increasing numbers of people have been actively immunized. The enormous degree of protection afforded by this means was strikingly demonstrated in World War II.

Since the clinical manifestations of tetanus are, during peacetime, nearly always a complication of a trivial injury, the great benefit to be derived from the active immunization of individuals is obvious. In the majority of the patients suffering from tetanus, the initial injury was so trivial as not to have warranted attention from a physician. Obviously only a very small proportion of the many who suffer the minor trauma of getting a splinter in the hand or foot consult a surgeon; yet this is one of the commonest precursors of tetanus.

Tetanus antitoxin, usually prepared in horse serum, has been widely used as a prophylactic agent in the treatment of injuries. If used in adequate dosage and if the individual is not sensitive to the foreign protein involved, a measure of prophylaxis will be obtained. But for the reason just given, namely that many individuals who incur tetanus have not had, in their opinion, an injury of sufficient magnitude to warrant medical care, it is certain that tetanus antitoxin will often not be employed when it is most needed. It is in such situations that active immunity is of the greatest value.

In recent years it has been the practice of Public Health Departments of most communities to administer tetanus toxoid in conjunction with diphtheria toxoid to infants and young children. There is also, in our population, a large group of people who are veterans of the armed forces and they, too, have been actively immunized. Although sufficient time has not elapsed to permit anyone to demonstrate that this is a per-

manent immunity, recent investigations have shown that the immunity lasts upwards of ten years, and that actively immunized individuals possess, during this period, the ability to respond rapidly and adequately to a booster or stimulating dose of tetanus toxoid.

The practice of actively immunizing individuals against tetanus should be extended as rapidly as possible to our entire population. This should be one of the objectives of the Civil Defense Program. Meanwhile, those who live in rural areas and, in particular, individuals who work with cattle, horses, and other barnyard animals should be especially urged to avail themselves of the protection afforded by active immunization against tetanus. It is clear that a booster dose of tetanus toxoid once every ten years will preserve the immunity. Future investigation will have to determine whether even this be necessary, and whether the booster dose usually given to a previously immunized individual at the time of treating his injury is really necessary.

It is also important to know that there is a readily available supply of potent tetanus antitoxin to be used in treating patients with tetanus who are hypersensitive to horse serum. This supply is in the plasma of immunized individuals, which will contain upwards of 10 units per milliliter if the donor has had a recent booster injection.

EDWARD S. STAFFORD, M.D.

Editor's Note: Dr. Stafford is Associate Professor of Surgery, The Johns Hopkins University School of Medicine, and Director, Surgical Clinics and Surgeon-in-Chief, Emergency Department, The Johns Hopkins Hospital.

Let's Reminisce!

In the May 1874 issue of the Virginia Medical Monthly, the Church Institute of Richmond announced its opening for the reception of all sick, needing medical or surgical aid.

Public Wards—\$6.00 per week

Private Rooms—\$10.00 to \$25.00 per week (Prices vary according to the gravity of the disease).

In an operation for abdominal section—removal of tumor—"the patient laid upon her back four weeks. She sat up at the end of six weeks. She walked the tenth week."

The Medical College of Virginia has 14 graduates in medicine and 2 in pharmacy. The University of Virginia has 16 graduates in medicine.

Maternal Mortality

Omissions and Commissions

ROBERT A. ROSS, M.D.
Chapel Hill, North Carolina

THE medical background and the advancement of medical practice in Virginia has been beautifully recorded.¹ Until recently similar efforts have been less evident in North Carolina, although it is recorded² that in "Lane's Colony" (the "Roanoke Hundred") who in August, 1585, built Fort Raleigh on Roanoke Island, there were included "apothecaries and a physician," but this colony remained only a few months. The first permanent English colony came to Roanoke Island two years later, July, 1587, and within weeks two dramatic events occurred, the first recorded Protestant baptism (Manteo, the friendly Indian) and the birth, on August 18th, of a daughter to Ananias and Eleanor White Dare, the first child of English parents born in America. There being no doctor in this colony, the delivery must have been attended by another member. The parents, probably in an effort to nullify the father's given name and with an eye toward history, had the good judgment to name the child Virginia. Although the "Province of Carolina" was founded with "a certain laudable and pious desire as well as enlarging the Christian religion," Governor Spottswood and Colonel Rhett had some doubts as to the fruit. After "Blackbeard" (Edward Teach) and Major Steve Bonnet were killed, some forty "Carolina pirates" were hanged in Charleston and nine in Virginia. North Carolina was known to its neighbors in the North and South. Fortunately, the experience in medicine and medical education was brighter. North Carolina is indebted to both sister states for their contributions in terms of doctors and doctor education.

The discussion of obstetric problems encountered in an adjoining state should prove mutually beneficial. Probably the greatest influence in helping insure judicious conservative obstetrics in our state has been the prodigious effort of the Maternal Mortality Committee of the North Carolina Medical Society. In evaluating faulty omission and injudicious commissions a statement of criteria and definition is in order. This Committee, like all such

commissions, has a duty regulated by definite rules, the most stringent of which is: In the opinion of the reviewing board, was the death preventable? It is emphasized that the decision is made on the basis of the "ideal" situation; a death is considered preventable if it "probably" could have been avoided by the application of ideal standards of medical care. This has penalized the doctor, but the doctors understand that this thoroughly critical and impersonal approach allows scrupulous analysis. It is recognized that there are other important factors which contribute to morbidity and mortality, factors which are at times difficult to disassociate from medical care. In these cases considered preventable the responsible factor in preventability was sought. One such factor was assigned to each case, physician, patient-family, midwife or facilities. If the responsible factor lies with the physician, it was further subdivided into the four factors of diagnosis, judgment, technique and management. If multiple factors are present, the Committee selected the one which seems most directly responsible for the death.

A maternal death is defined as any death, regardless of cause, occurring during pregnancy, or within six months after the termination of pregnancy. All maternal deaths are divided into "obstetric" and "non-obstetric" deaths. A non-obstetric death is one in which the major cause of death is in no way related to the pregnancy. There are three general groups where the major cause of death is:

1. Direct obstetric complication, such as abortion, ectopic pregnancy, hyperemesis, postpartum hemorrhage, toxemia, pulmonary embolism and anesthesia.
2. Diseases which are aggravated by physiologic changes in the demands of pregnancy, such as renal or hepatic disease, tuberculosis, and pneumonia.
3. Diseases which lead to obstetric complications or necessitate obstetric intervention, for example, acute peritonitis following appendicitis leading the abortion or premature labor. Also included as "other obstetric causes" are such unusual conditions as chorionepithelioma, ruptured hemorrhoidal varix, drug sensitivity and poisoning due to abortifacient listed.

The Committee has studied the records of over

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Presented at the annual meeting of The Medical Society of Virginia, Richmond, October 18, 1955.

1700 maternal deaths and the first thousand reported in detail;³ in addition, Donnelly⁴ has reviewed the still-birth rate in this series. The publication of these data in some fifty related articles, the widespread distribution of this information, the enormous amount of correspondence with doctors, hospitals, clinics and agencies throughout the state all in connection with the diligent work of this Committee has increased interest in maternal morbidity and mortality.

The physician was noted as the "preventable factor" in approximately 55 per cent of the maternal deaths. The assigned causes of death and their ratio are familiar to doctors in both of our states.⁵ The toxemias were first ranking with 26 per cent; hemorrhage is second with 25 per cent, followed by embolism, infection and cardiac disease, each approximately 7 per cent, anesthesia caused 2.5 per cent of the deaths, other obstetric causes 10 per cent and non-obstetric causes approached 15 per cent.

The cause of eclampsia is not known, an accumulation of related data would seem to indicate there probably is no single cause; the parallels of malnutrition, dietary, racial and sociologic background, infections and systemic diseases all participate, and hypertension and vascular and renal diseases are associated with the tendency to pre-eclampsia, which may become true eclampsia. In practically all cases we find inadequate or no prenatal supervision. In treating this syndrome, sedation is generally accepted as the initial basic therapy. Later fluid balance, intake and output, is regulated, followed by induction of labor and delivery. Greater chance of error lies in either undue haste or injudicious delay in attempting delivery. The former is more frequent. Caesarean section in eclampsia has followed an interesting curve. At present with blood banks, antibiotics and other adjuncts, use of the operation is increasing in frequency as definitive therapy; it has always been popular when a surgeon is the obstetric consultant. Where we find several modes of treatment being used in the management of a disease, all are usually equal in their effectiveness. The best treatment of the toxemias is prevention by adequate prenatal care, close supervision and hospitalization and termination of pregnancy when the patient's life, or, we believe, health is in danger. The institution of this regimen is wise in the management of all types of toxemia of pregnancy; age, parity, patient's desires are factors which must be considered. In addition, in this series of studied cases the toxemias were thought to be a contributing factor in the cause of death in 8 per cent of those listed under other

causes. We do know that the duration of the symptoms of toxemia reflects unfavorably in the patient's longevity. Fortunately, the toxemia incidence is decreasing.

"Hemorrhage" as a cause of death remains fairly constant. The usual background of placenta previa, abruptio placentae, ruptured uterus, operative interference, both vaginal and abdominal, and abortion follows average figures, but the analysis of deaths from ectopic pregnancy is revealing. In approximately 50 patients dying from hemorrhage associated with ectopic pregnancy only half had surgery of any type, confirmation procedures were seldom used and transfusion, if used at all, was delayed, for various ascribed reasons, until too late. It is disturbing to find 6 patients in 5 years pronounced dead from intrapartum and postpartum hemorrhage when first seen by a physician. Recently, the mechanism of blood clotting has been more extensively re-studied and the condition of hypofibrinogenemia emphasized in postpartum hemorrhage. In reviewing these deaths from hemorrhage, Donnelly could find only 4 possible cases and actually only one that appeared valid. It is a rare condition but should be borne in mind. Crude tests for blood clotting are at hand and blood fibrinogen determination are now available in most centers. Whole blood, plasma and commercial fibrinogen are used in combating the condition. Fortunately, the increased number of small blood banks in modest centers and larger blood banks in every section of the state is favorably influencing the death rate of hemorrhage from all causes. Now that four national agencies have joined with the Red Cross in the "blood program," a more favorable distribution should be assured.

Anesthesia and analgesia certainly have a place in the management of labor, yet obstetric anesthesia has always been regarded in a somewhat casual fashion. The night supervisor, delivery room nurse, spare house officer, available doctor and even the doctor conducting the delivery are variously called on for the important function of giving "the anesthetic". This inept, though at times necessary, practice can account for 2.5 per cent of maternal deaths. We found nine instances of death where spinal anesthesia was given by the doctor himself because "no anesthetist was available," a surgical dose being used in five cases. Neither the doctors nor the hospital are happy with such a condition. With the increase in physician and full time anesthetist, the obstetrician now has a fully sympathetic ally and can expect a reduction in the incidence of this tragic occurrence.

In a background which predisposes to toxemia we are likely also to find an increase in all types of infection. In obstetrics this is especially true. Although the antibiotics and blood availability have markedly reduced the mortality rate in puerperal infection, it remains a constant hazard accounting for approximately 20 per cent of the total. It is unnecessary to dwell on the cause; the treatment is known to all. Eternal vigilance and the maintenance of an "aseptic conscious" greatly relieve the doctor's responsibility. It is most difficult to disassociate embolism from infection; a number of deaths ascribed to "embolism" certainly have infection as a background. In spite of every effort, this tragic complication cannot be entirely eliminated.

Obstetric deaths from causes other than the major ones described can be further reduced, often anticipated, sometimes prevented, but the zero "none" hardly achieved.⁶

Maternal mortality and the welfare of the obstetric patient cannot be judged in terms of medical care alone. Our maternal mortality committees take this into consideration in trying to place responsibility. In all the many millions spent in programs for saving and maintaining life, maternal welfare is at the bottom of the list. Special funds for the medical care of pregnant females are practically unknown and general funds give no consideration for this type patient. (There are 8, to 10,000 midwife deliveries each year in North Carolina and the mortality rate is twice as great in such deliveries.) It is our firm belief that once a patient is admitted to a hospital she receives as good care in our geographic area as elsewhere. In 1924 there were only 71 hospitals with 2186 beds, no blood banks or health centers. In 1947 there were 115 hospitals and health centers with 9,636 patient beds and 9 blood banks; in 1951 the numbers had increased to 248 hospitals and centers containing 13,700 beds with 52 blood banks. Since 1952 the number of new hospitals and centers has shown slight increase, and the hospital beds and blood banks have greater numbers and a much better distribution. To help patients avail themselves of competent care we consider secondary highways, all

weather rural roads, communications of all sorts, improved farming methods, participation by city, county and state medical groups in maternal welfare programs, an available blood bank in every community and other socio-economic factors just as important to the patient's welfare as some professional certifying agencies. Developing, encouraging and assuring better maternal care should also be classified as "physician responsibility". In North Carolina the Maternal Mortality Committee has been largely responsible for the following:

1. A substantial reduction in the maternal mortality rate, more favorable than the general decrease recorded throughout the United States. (In 1932-36 the rate was 71.1 per 10,000 live births; in 1941-45 it was 33.0; in 1949 it was 11.8 per 10,000 live births. Since 1951 a review of the last 700 deaths shows decrease in total maternal deaths with a relative increase in non-obstetric deaths.)
2. An increase in requesting and using consultants.
3. A greater consciousness on the part of the "hospitals" of the necessity of an organized and functioning obstetric staff.
4. Increased interest by the anesthesiologist in anesthesia and analgesia of the obstetric patient.
5. Widespread distribution of blood bank service.
6. Recognition of socio-economic, dietary and hereditary factors and associated systemic diseases as definite influences that may alter the course of the pregnant female.

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Mixed Mesodermal Tumors of the Uterus

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DURING the past few years there has appeared in the literature a number of sporadic reports on the occurrence of a relatively rare type of tumor of the female genital tract, namely, the so-called mixed mesodermal tumor. The first neoplasm of this type to be reported was an uterine chondrosarcoma which was described by Wagner in 1851. Due to the numerous variations in the histological structure, there exists today some confusion as to which tumor should be included in this group of neoplasms. Theoretically, whenever a growth occurs in the uterus or cervix which contains at least one mesoblastic tissue that is foreign to the female genital tract, then such a tumor should be called a mixed mesodermal tumor.

Due to the infrequency of such lesions, and according to Emil Novak,¹⁷ "our knowledge of the whole group is still rather woefully incomplete," and since there is some difference of opinion in regard to treatment and prognosis of this type of neoplasm, the author believes that case reports should continue to be presented.

Case History.—A.W., Medical College of Virginia (St. Philip Division), case #B-20-34-71 was a 52 year old very obese single colored nulliparous female beautician, complaining of continuous vaginal bleeding for three weeks when first seen in the office on August 12, 1954.

Her menarche began at age 13, occurring every 28 days and lasting 4 days. Two years ago she had a gradual menopause with her periods becoming irregular, skipping as much as four months at a time and accompanied by very slight hot flashes. She also noticed that she was passing small dark blood clots about the size of a nickel. During the past three months the vaginal bleeding became foul smelling, more profuse, almost continuous, with only a couple of days each month free of any bleeding. A number of blood clots the size of an orange were passed.

In 1924, twenty years ago, she had surgery, and at that time she was told that because of a tumor her uterus and her appendix were removed. (As proven later, her uterus was not removed.)

In 1941, she was treated with sclerosing injections for varicose veins of both legs. She did not give any history of ulceration of her legs, but did notice

a progressive thickening of the skin of the ankles.

There was no family history of cancer or tumors. The rest of the past history and systemic inquiry was non-contributory.

The admission of this patient was delayed about 6 weeks because the patient refused to go in the hospital while the vaginal bleeding was profuse. Instead she elected to stay at home in bed.

Examination on admission showed a very obese medium statured colored woman, weighing 235 lbs., who appeared her stated age of 52, and was in no apparent pain or distress. Her obesity seemed to be more prominent in her breasts, abdomen and thighs. The abdominal fat rolled over as an extra fold on the symphysis pubis. A lower midline scar extended from below the umbilicus to a puckered area just above the symphysis pubis. Abdominal exam. was not completely satisfactory because of the extreme obesity. A firm non-tender indefinitely outlined solid mass in the left side of the abdomen extended up to the umbilicus. There was tenderness in both lower quadrants but no rigidity on deep palpation. The vagina was very deep and on bimanual examination, the abdominal mass seemed to be continuous with the uterus. The uterus which could not be completely outlined seemed to be limited in its mobility by adhesions. The cervix was soft and patulous. A firm nodular mass could be felt in the left fornix and in the posterior cul-de-sac. The right fornix could not be examined well. Vaginal speculum exam. showed large amount of foul smelling old blood and nothing could be seen protruding through the cervix except old blood. There was no dependent edema. The skin of both ankles for about 4", involving the entire circumference, was markedly thickened, wrinkled and leather hard. The posterior tibial and dorsalis pedis pulsation could not be felt in either leg on account of the ichthyosis. There was good arterial pulsation of the popliteal and femoral on both sides. The rest of the physical exam. was essentially negative.

Laboratory findings on admission: Hemoglobin—10.5; Urine—Specific gravity 1016, Rare W.B.C., otherwise negative. Fasting blood sugar—77, B.U.N.—10.

On November 18, 1954, the day following admission to the St. Philip Division of the Medical Col-

lege of Virginia Hospital, the patient was taken to the GYN. Exam. Room and the vagina was evacuated of foul smelling blood. No tumor or tissue protruded into the vagina. The cervical canal was patulous and contained friable tissue which was removed with a Bozeman dressing forceps. The immediate frozen section report of the tissue was malignancy. My clinical impression was either leiomyo-sarcomatous degeneration of a fibroid tumor or carcinoma of the endometrium with coexisting fibroid tumors. Just before the operation on November 19, 1954, was started, the permanent section report was "Sarcoma of the Uterus, type undetermined." It was then decided not to insert radium in the patient but to go ahead with the major surgery. The old abdominal wall cicatrix was removed and the very old inflammatory intestinal and pelvic adhesions were freed. Even the bladder and its peritoneal reflection were firmly stuck to the anterior surface of the uterus. The liver surface was inspected and found free of any nodules. The uterus and its many leiomyomata varied in size from 1 to about 10 cms. The uterus and one of the larger fibroids were strikingly abnormally soft, suggesting degeneration. On examining the uterus after completion of the operation of the total abdominal hysterectomy and left oophorectomy, one could express with ease through the cervix degenerated brain-like material. An unidentifiable, elephantitic round ligament-like structure measuring 9 x 2.5 x 2 cm. attached to the left side of the uterus was removed with it, was identified later by the pathologist as ovary with metastatic tumor. A 1 cm. spherical mass removed from the omentum was later reported by the pathologist as blood clot and fat, and no malignancy.

No fallopian tube or right ovary was found. Evidently these were removed at previous operation 20 years ago. After the uterus and attached tumors were removed, the aorta was palpated and found to be accompanied by several firm lymph nodes varying in size from 1 to 3 cm. None of these nodes were removed. There was a great deal of difficulty in peritonealization. It was necessary to suture the bladder peritoneum to the serosa of the sigmoid, because the entire pouch of Douglas had hardly any peritoneum. An attempt was made to overcome this by filling up the pelvis with remaining sigmoid and thereby hoping to keep out small bowel. The patient had 2000 c.c. of citrated whole blood and stood the procedure very well. It was estimated that the patient lost 1500 c.c. of blood during the operation.

The final principal pathological diagnosis was

malignant mixed mesodermal tumor of the uterus containing an intermixture of carcinoma and rhabdomyosarcoma with metastasis to the left ovary and multiple leiomyomata.

PATHOLOGY REPORT (#S-54-8558)

By Dr. S. K. Boyd and Dr. Saul Kay, Chief of the Department of Surgical Pathology—

Gross Description: One specimen labeled the cuff from the vagina measures 3.5 x 2.5 x 1 cm. It is covered on one side by what looks like vaginal mucosa. This is a fairly firm pink piece of tissue. Another specimen which is unidentified and separately received measures 9 cm. in length and 2.5 in width and 2 in thickness. The specimen cannot be grossly identified. The cut surface shows a more or less uniform gray with a few tiny brownish regions which range in size from 1 to 2 mm. The main specimen is a uterus with numerous large fibroids both pedunculated and intramural. Careful examination of the specimen does not show the adenexa in any location. The entire mass measures overall 19 cm. in length, 16 in width, and 10 cm. in thickness. The cervix is no longer recognizable as such; however, it now consists of a cauliflower, fungating friable mass of tissue, which is necrotic, and measures 6 cm. in diameter. On opening the uterine cavity insofar as the wall of the uterus can be determined, it measures up to 2 cm. in thickness in some regions. The uterine cavity is filled with a fungating necrotic cauliflower tumor mass which occupies the entire surface of the lumen of the uterus. Multiple sectioning of the myometrium shows numerous spherical tumor masses, which on cut section show interlacing whorls of firm whitish tissue. One of these is fully pedunculated and measures 7 cm. in diameter. The second which has a rather broad peduncle measures 9 cm. in diameter. The remainder of the tumor masses range in size from 1 cm. up to the dimensions listed above.

Microscopic Description: Examination of the spherical tumor masses shows that they are composed of interlacing whorls of smooth muscle and connective tissue, which characterize a multiple leiomyomata of the uterus. Examination of the sections from the posterior vaginal cuff does not show any evidence of tumor infiltration. Examination of sections from the odd piece of tissue which was included along with the specimen show that the tissue is ovary and there are many nests of tumor cells which are rather small in the ovarian stroma. Numerous emboli of tumor cells are noted in the lymph channels of the ovary. It is understood that this piece of unidentified tissue,

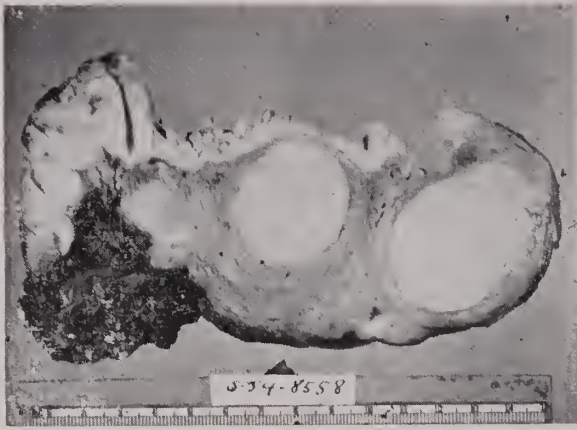


Fig. 1.—Sagittal section of uterus to show leiomyomatous nodules, endometrial carcinoma on the surface and sarcomatous stroma at extreme left of photograph.

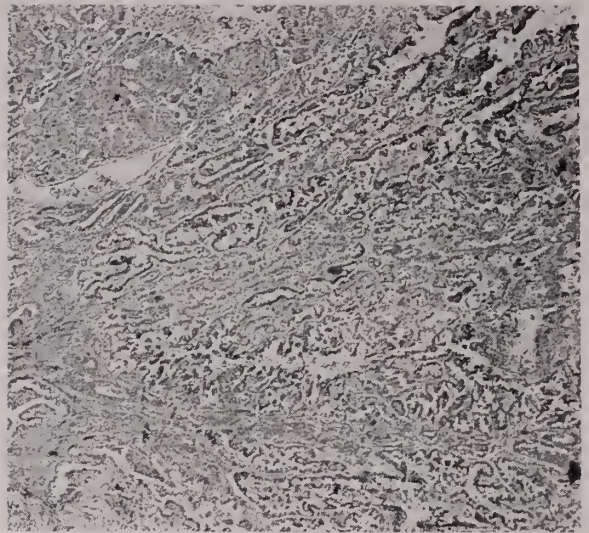


Fig. 2.—Microscopic features of glandular and papillary carcinoma of the endometrium.

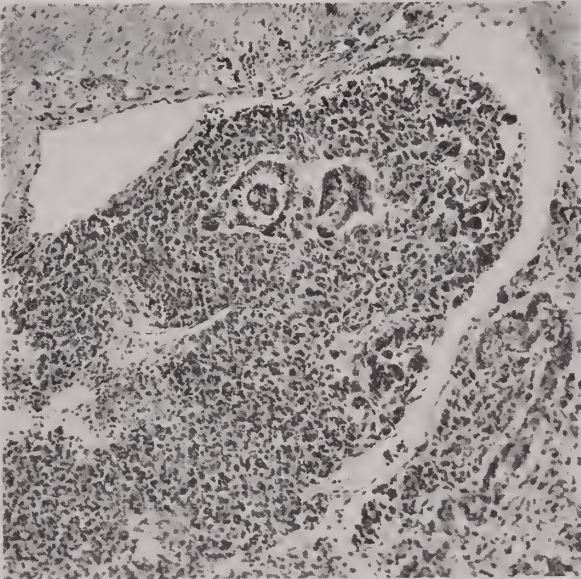


Fig. 3.—Area within the cervix to show carcinomatous glands surrounded by sarcomatous stroma.

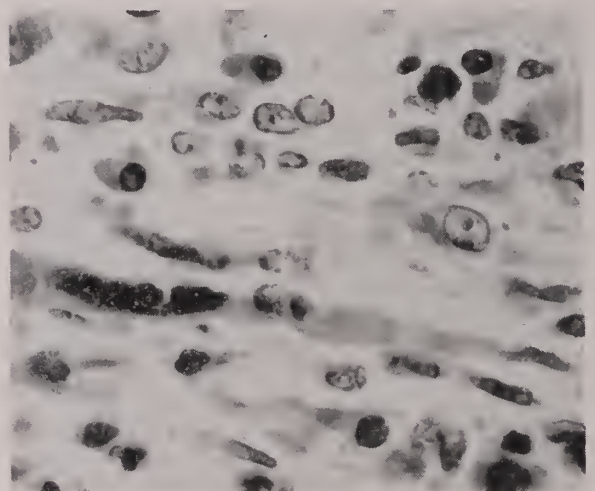


Fig. 4.—High power view to show details of rhabdomyoblasts. Note nuclei in tandem.

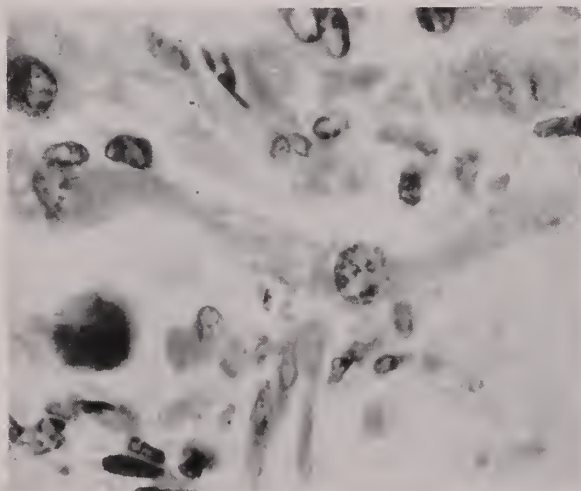


Fig. 5.—Details of one rhabdomyoblast to show well defined cross-striations.

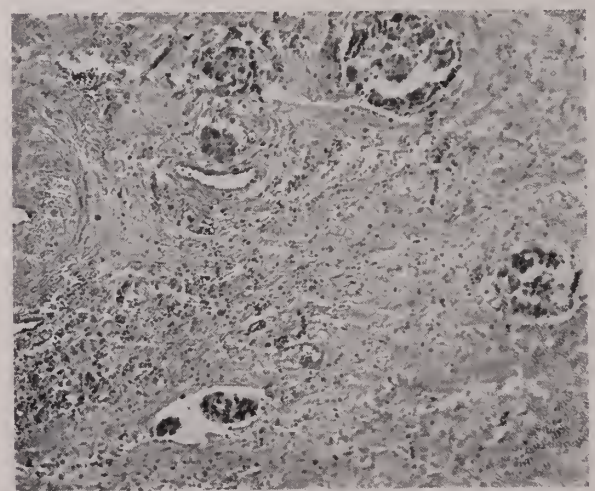


Fig. 6.—Metastasis in Ovary. Note that it is of the epithelial variety.

that is, previously unidentified tissue was removed from the left side so it must constitute the left ovary which shows extension of the tumor. Gross examination of the body of the uterus shows that the tumor which heavily infiltrates the lumen of the uterus does not break through the wall in any region. Sections of the endometrial area show a glandular type of carcinoma which is poorly differentiated with the nuclei of the tumor cells, varying in size, shape and staining and many showing extreme variation with hyperchromia and numerous mitosis. However, in some regions the lumen formation is fairly well preserved. In others, there are solid sheets of tumor cells. Examination of sections from the cervix shows a sarcomatous change in the cervical stroma characterized by variation of the nuclei in size, shape and staining, and a number of bizarre mitosis in the cervical stroma. On examination of additional sections with special stains of the cervix, it is noted that the nuclei show extreme variation in the cervical stroma in size, shape and staining. There is hyperchromia of many nuclei and mitosis are plentiful in all fields. In several regions elongated cells which show both lateral and longitudinal striations are found which indicate that the tumor is of mesodermal origin and contain elements of striated muscle which place it in the category of rhabdomyosarcoma. Actually this tumor is usually referred to as a malignant mixed mesodermal tumor.

The tumor cells show the characteristics of mixed mesodermal tumor which has its origin in the cervix. While it is noted that the posterior vaginal cuff shows no evidence of extension of the tumor, the lymphatics in many of the sections of uterus, cervix and ovary show tumor emboli. While it is noted that there is direct extension only to the ovary, the numerous tumor cells in the lymphatics make a general spread more or less certain.

PATHOLOGICAL DIAGNOSIS:

Malignant mixed mesodermal tumor of the uterus with metastasis to left ovary—Leiomyomata of uterus (multiple)—Chronic cervicitis

Frequency: As for the frequency of these tumors, in 26,114 gynecological cases at the Charity Hospital of New Orleans,⁸ 21 cases of mixed mesodermal tumors of the uterus were found. Webb¹ reported 13 cases of mixed mesodermal tumors and 22 leiomyosarcomas in a review of all the hospital admissions at the University of California and San Francisco Hospital from 1918 to 1952. The 13 cases of mixed mesodermal tumors included 5 carcinosarcoma. Approximately 4% of the malignant tumors of the uterus

appear in the form of sarcoma. The usual forms of sarcoma are most apt to appear in the fibromyomata. Of all the uterine tumors, sarcoma represent approximately 1%.

Age: In considering the age incidence, the site of the growth of the mesodermal mixed tumor is of importance. Almost all the vaginal tumors occur in children or infants. Wurtz,² in his series of 18 cases, found that those mixed mesodermal tumors—arising from the cervix are most frequent in women in active menstrual life, and those of the body of the uterus are usually in the post-menopausal period. Meikle³ and others found a similar incidence of these tumors. In a recent report from the Mayo Clinic, Symmonds⁴ and Dockerty found that the average corporeal mixed mesodermal tumor occur in patients about 61 years of age.

Parity: Of the 14 cases of Wurtz¹¹ in the child-bearing or older ages, 7 were nulliparous, 5 were primigravida, and 2 were nulliparous. In the Mayo Clinic⁴ group of 19 cases, 13 were married and 11 had borne viable offspring.

Previous Irradiation: Corscaden⁵ noted that there was 3.4 times as many carcinomas of the cervix and the corpus in women who had been irradiated previously than was to be expected in a similar group of patients who had no irradiation. Symmonds⁶ and Dockerty report a history of menopause by irradiation in 5 patients with carcinosarcoma. In Webb's series 11.9% of the endometrial sarcoma of all types had previous irradiation. The lapse of time between irradiation and the appearance of a sarcoma was 3-16 years. Thus it appears that the sequence of events in these and other reports represent an incidence of malignancy changes too high to be coincidental. Perhaps one could postulate that patients with abnormal bleeding severe enough to require irradiation might fall into a category with an inherent tendency to develop malignant types of neoplasms.

Presenting Complaints: The most common presenting symptom appearing in these patients is abnormal bleeding, either meno-metrorrhagial or post menopausal. In many instances, tissues would be passed from the vagina, or especially in infants, a mass might present itself at the introitus. Amongst other symptoms were foul leukorrhoea, pelvic pain and a rapidly enlarging abdominal mass.

Physical Examination: It is not unusual to notice a polypoid mass in the cervical os, or a mass in the vagina in patients with mixed mesodermal tumors of the uterus. Enlarged uterine, pelvic or abdominal masses may be found on bimanual examination. Only on rare occasions is a sarcoma suspected preopera-

tively because of unusual rapidity of growth of a previously existing fibromyoma. In most instances, the diagnosis is not suspected until histological study of the surgical specimen has been made.

Gross Pathology: The peritoneal surface of the uterus is usually smooth and nodular. Spread into the surrounding structures is usually by direct extension which is not infrequent. The masses are likely to be polypoid, glandular and sometimes lobulated. The pedicles of these polypoid masses may be narrow or broad and the most frequent site of attachment is the posterior wall of the corpus. The external appearance is fleshy, grey, and there may be yellow, red or brown soft necrotic regions. Fatty masses in cartilaginous areas have been observed. In the sarcoma botryoides the masses are grape-like, presenting through the cervical os. The cut surface reveals a brain-like consistency and there may be a gelatinous focus of myxomatous tissues.

Histological Features: Mixed mesodermal tumors of the uterus present malignant tissue which is dysostegenetic. This heterotopic tissue may take the form of malignant striated muscle, cartilage, myxomatous tissue, fat and bone. There is some controversy amongst pathologists as to whether striated muscle or embryonic striated muscle fibrils have to be present to fit the criterion of being included in the type of tumor. The bulk of many of these neoplasms consist of highly malignant fibrocellular or fibromyxomatous tissue. Pleomorphism, small and large round cells and spindle cells intermingling with elements possessing anastomosing processes were present. Giant forms with eosinophilic cytoplasm can also be found. Blood vessels are abundant and thin-walled. Carcinoma with their usual glandular pattern are quite prevalent.

Metastases: The spread of these tumors is by direct extension, blood stream and lymphatics. The sites of metastases are the pelvic viscera, regional nodes, retroperitoneal areas, pulmonary, hepatic, pericardial and pleural regions.

TREATMENT

The minimal treatment should be total abdominal hysterectomy and bilateral salpingo-oophorectomy. As for local excision, this represents inadequate treatment as prompt recurrence and a fatal outcome occurred following local excision in every case in the Mayo Clinic series. Local excision is advisable only in those cases in which the tumor is necrotic and prolapsing in an inoperable case with an offensive discharge. Local excision is also performed in preparation for more extensive surgery in cases in which

the bleeding is uncontrollable. There is some controversy as to the value of post-operative irradiation. However, in order to utilize every possible means of therapy at our disposal, the irradiation should be employed as an adjunct to surgery, especially in these cases in which carcinomatous components are present. Vaginal hysterectomy should be considered for elderly patients who constitute poor risks in preference to reliance on radiation therapy only. Vaginal tumors always require radical surgical procedures, namely, total hysterectomy with partial or total vaginectomy and eversion. Ulfelder⁷ and Quan reported a case of a mixed mesodermal tumor in a 26 month old girl in whom an abdominoperineal hysterectomy and vaginectomy was performed. This patient was alive 5 years after surgery. In regard to nitrogen mustard therapy, Sternberg⁸ had no success with the use of this modality of treatment in 2 cases. In 1923, Masson⁹ recommended a modified Wertheim for a sarcoma of the uterus. However, at the present time there is a difference of opinion as to whether a pelvic lymphadenectomy should be performed as part of the surgical procedures in these cases. The New Orleans Group⁸ are in favor of the radical Wertheim. However, Thomson¹⁰ and Carter and others do not believe that lymph node dissection is warranted.

PROGNOSIS

The mortality rates have been quite variable in numerous clinics. There have been reports of as high as 90-95%. However, Symmonds and Dockerty have reported 4 cases alive from 9-19 years, and two of these four revealed histological sections with rhabdomyosarcomas with definite striated cells. Wurtz¹¹ reported 6 patients who were alive 38.3 months after the onset of symptoms and 35.5 months after the initiation of treatment. There have been other reports of survival of varying periods of time following therapy. Thus the prognosis in these cases is not completely hopeless, and if there is no serosal or appreciable extension of the tumor, there may be some chance of a cure in these patients regardless of the cellular constituents of the tumor.

HISTOGENESIS

Until recently as many as 119 different names have been designated to this type of tumor. As to the histogenesis of these neoplasms there is no agreement on the part of pathologist to explain the heterotopic appearance of these tissues which are foreign to the female genital tract. Pfannenstiel was of the opinion that these tumors originated from the stroma of the endometrium that underwent metaplasia. Sternberg

has also been a proponent of this theory in that he believes that the mixed tumors originate from the muelleris tract and have their specific origin in the stroma immediately beneath the epithelium of the lumen of the uterus or endocervix. The mere fact that this stroma can develop into a decidua under a progestational influence is significant of the pleuripotentiality of this type of cell. Under appropriate stimuli the stroma can apparently give rise to all the histological elements appearing in these tumors. In fact, in Sternberg's series, a number of cases were first diagnosed as endometrial sarcomas, and subsequent studies revealed the presence of carcinomas, rhabdomyosarcomas, chondrosarcomas, etc. Marchand believes these tumors arise by way of metaplasia from smooth muscle cells. Cohnheim postulates that in all tissues there are immature cell rests which are constantly ready for replacement when repair takes place after injury and tumor formation. Thus it is theorized that the very primitive smooth muscle cells could alter their course of development and become striated muscle. Shapiro¹² agrees with Wilson's theory, namely, that striated muscle tissue arise from primitive mesodermal tissue and is carried down in the descent of the Wolffian Duct. The author believes that the two most convincing explanations for these tumors in the female genital tract are, first, the theory of Sternberg in which he maintains that these tumors arise from neoplastic influences in the subluminal stroma of the endometrium and endocervix, and, second, that there are some mixed mesodermal tumors which conceivably could arise from a metaplasia of immature cell rests.

TERMINOLOGY AND CLASSIFICATION

These tumors may appear in various combinations. Barnes¹³ suggested the terminology of carcinoma sarcomatorides for carcinoma with histological characteristics of sarcoma, carcinosarcoma for intimate mixtures, and carcinoma plus sarcoma when the two separate tumors could be demonstrated. Ewing¹⁴ offered four explanations: First, simultaneous occurrence of two separate tumors could take place. Second, two tumors might arise separately, but one may invade the other later. Third, at the point where a submucous or intramural senoma meets the endometrium, a carcinoma could secondarily develop. Finally, it is conceivable that the glands in sarcomatous polyp may become carcinomatous. Hill¹⁵ and Miller applied the following terminology to this type of tumor: 1.—Mesenchymoura. 2.—Mesenchymal sarcoma. 3.—Malignant mesenchymoma. 4.—Combined mesenchymal sarcoma and carcinoma.

5.—Dysosteogenetic tumor. Wilson¹⁶ has offered the excellent classification of mesodermal tumors of the uterus, namely:

- 1.—Carcinoma—Epidermoid or adenocarcinoma.
- 2.—Sarcoma—Rhabdomyosarcoma, Leiomyosarcoma.
- 3.—Mixed Mesodermal Tumor.
 - A.—Carcinosarcoma: Rhabdomyosarcoma with carcinoma.
 - 1.—With other mesodermal elements.
 - 2.—Without other mesodermal elements.
 - B.—Carcinosarcoma: Leiomyosarcoma with carcinoma.
 - 1.—With other mesodermal elements.
 - 2.—Without other mesodermal elements.
 - C.—Carcinosarcoma: Undifferentiated sarcoma with carcinoma.
 - 1.—With other mesodermal elements.
 - 2.—Without other mesodermal elements.
 - D.—Rhabdomyosarcoma with other mesodermal elements.
 - E.—Leiomyosarcoma with other mesodermal elements.
 - F.—Undifferentiated sarcoma with other mesodermal elements.
- 4.—Benign Neoplasms.

SUMMARY

1. An additional case history with a review of the literature on mixed mesodermal tumors of the uterus has been presented.
2. These tumors are more apt to be seen in the vagina in infants, in the cervix of women of child-bearing age, and in the corpus in the post-menopausal period.
3. There seems to be no interference with incidence of fertility in patients with mixed mesodermal tumors.
4. Although there is evidence of greater incidence in patients who have had previous irradiation, the author believes that the factor requiring the necessity of irradiation for the treatment of functional vaginal bleeding, may be the exciting factor in causing the mixed mesodermal tumor rather than the irradiation. No one has proven that irradiation can be a forerunner of this tumor. If it were true, mixed mesodermal tumor would be a common occurrence instead of a rarity. It would be particularly evident since irradiation for functional bleeding of the uterus was so popular in the 1920's and 1930's. Now irradiation of the female organs is restricted to the treatment of

malignancy and rarely for functional uterine bleeding.

5. The most common symptom and sign to be presented is abnormal bleeding and the presentation of a mass presenting through the cervical os, or in the vagina. The odor of the blood is usually very foul, suggesting sorporific changes.
6. The gross appearance is usually characterized by a polypoid mass which is globular and sometimes lobulated. Externally, it is usually fleshy, grey and soft. Spontaneous extruded material has a gross appearance of brain tissue.
7. Microscopically, these tumors present rhabdomyoblasts, cartilage, fat, myomatous tissue, and the glandular pattern of carcinomata. Any one or combination of all of these elements may be present. The most consistent cell type and often difficult to find without thorough search, is the rhabdomyoblast.
8. These tumors spread by direct extension, blood and lymphatics, perhaps the carcinomatous component usually by lymphatics and the sarcomatous usually via blood stream.
9. There is some controversy as to the ideal type of treatment. However, a minimal treatment should consist of total abdominal hysterectomy and bilateral salpingo-oophorectomy. Local excision is to be condemned except as a palliative procedure in which there is a necrotic, hemorrhaging mass, and with a plan to follow up with more extensive surgery. In cases with carcinoma tissue present it is probably wiser that irradiation should always be used post-operatively. Vaginal tumors require total hysterectomy, vaginectomy and possibly evisceration. Nitrogen mustard has not been beneficial in the few cases it has been employed. Pelvic lymphadenectomy has been suggested as value in the operative procedures. However, this has not been universally accepted.
10. The prognosis of these cases is not 100% hopeless. Cases of over nine year cures have been reported even with the presence of rhabdomyoblasts in the sections. It is now generally accepted that the prognosis is greatly influenced by the amount of extension outside of the serosal wall of the uterus rather than by the type of cells that comprise these tumors.
11. As for the histiogenesis, the author believes that the two most plausible theories are: First, neoplastic influences exerting themselves on the subluminal stroma of the endocervix and the

endometrium, and, second, in some instances immature cell rests may undergo metaplasia.

12. The terminology and classification of these tumors have been in a state of confusion. However, a suitable classification as proposed by Wilson, *et al*, has been presented.

Note. The author wishes to acknowledge the valuable assistance of Dr. Saul Kay of the Medical College of Virginia in reviewing the microscopic material in this report; and sincere appreciation to Mr. Melvin Shaffer of the College, for the photography.

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Massive Bleeding from Peptic Ulcer

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MASSIVE bleeding from gastric or duodenal ulcer presents a very serious problem, with mortality higher than may be generally realized.

This presentation gives in brief our experiences during nine years at a Veterans Hospital of 450 beds, and takes note of lessons learned since 1946. The analysis is limited to the massive type of bleeding, in which multiple transfusions were required, the hemoglobin being reduced to 8G or less.

Of 200 cases falling into this class, 24 have died, or 12%. It is to be stated that many of the older patients had serious disease of the heart, liver, lungs or other internal organs in addition to massive hemorrhage; and, with these complications, such patients have died whether treated medically or surgically. Ten patients died under medical management; 43 were referred for emergency surgery, and of these 14 died. To put the matter in a more favorable light, 29 individuals were salvaged by surgery who otherwise would have died, as far as we could tell. We now are quite sure that with improved technique, several of those that died might have lived; and the latter part of this paper deals with the details of technique.

Medical treatment of the actively bleeding ulcer is superior to surgery if it succeeds, and it does succeed in 75%. However, it fails in 25%, and for this reason severely bleeding patients should be carefully watched by medical men and surgeons acting as a team.

The difficult problem has been to determine whether active bleeding is continuing. If it continues and is severe, failing to respond to transfusions every eight hours or so, or if it recurs after apparently stopping, operation becomes imperative, and will save 70% of this otherwise probably fatal group.

Operation during the stage of massive hemorrhage is a dangerous procedure with a high mortality of 30% in our hands thus far, though we believe it should be less than 20% with improved technique. The operation is strictly one of emergency, to be done only if medical treatment fails; however, of course to delay until the patient is actually exsanguinated is only to make the mortality even worse.

The age of the patient cannot be depended upon

as regards prognosis; we have had deaths in the young as well as the old.

SURGICAL TREATMENT

The reason for the high mortality of emergency gastrectomy is three-fold; first, the patient with continuing hemorrhage is in poor shape to withstand any major operation; second, there may be in older patients, and in some younger ones, severe complications already present; and, third and most significant, gastrectomy during hemorrhage is not at all the relatively simple procedure as done in the interval. Continuing hemorrhage makes it imperative to get out the ulcer, or to exteriorize it from the duodenum; and this may be a very difficult technical problem, sometimes almost insoluble. It is usually time-consuming, adding to surgical shock. Operations other than gastrectomy are not dependable in stopping massive hemorrhage.

The balance of this paper is concerned with an analysis of death in patients coming to surgery. All statements as to the cause of deaths are based on autopsy findings.

Four patients in whom operation was completed and who later died presented complications of a severe grade—acute atrophy of the liver, hypertensive cardiac disease with cor bovinum, status asthmaticus with bronchi so constricted that one lung and half the other were completely collapsed at autopsy. All treatment, including bronchoscopy, was unavailing. The other complication was that of universal hemorrhage from the entire gastro-intestinal tract, in a patient who had taken cortisone, unsupervised, for months.

Two cardiac deaths occurred during induction of anesthesia, and one patient in obvious failure, with pulmonary edema, died two hours after surgery.

It may be stated that if complications such as these are present, the patient will die with or without surgery; and this portion of the mortality rate is, I believe, irreducible.

One patient died of surgical shock, as such—the only such case in our series.

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Presented at annual meeting of The Medical Society of Virginia, Richmond, October 16-19, 1955.

The remainder of our surgical deaths fall under two headings—continued bleeding, four cases; and leakage at the duodenal stump, three cases. I wish to consider these in detail.

1. DEATH FROM CONTINUING HEMORRHAGE

In the first place, no patient, no matter how desperate his condition from continuing hemorrhage, should be refused surgery. We have operated upon patients in air-hunger, pulseless and actually unconscious from loss of blood; only one has died from surgical shock. Early in our experience, we refused surgery in one patient, feeling that he would not stand it; he died of continuing hemorrhage. We have refused no other since that date.

The situation is just analagous to ruptured ectopic pregnancy; operation is imperative, no matter how grave the patient's general condition. Of course, ample blood and expert anesthesia must be available.

Secondly, the ulcer must be found. This will often require wide opening of stomach and duodenum, which in itself is harmless. It may be necessary to sponge suspicious areas rather firmly, or to pack the stomach with gauze, which, when removed, brings with it a layer of adherent fibrin and blood-clot, clearly revealing a shallow denuded area if present. This technical point has recently been mentioned by Olander.¹

If the ulcer is not found, the patient may die of continued bleeding. We had one death because we failed to find the ulcer, though we had opened the stomach widely at surgery.

This was our only surgical death in hemorrhage from gastric ulcer.

Incidentally, the hemorrhage may be coming from the esophagus, and, if in doubt, the finger should be inserted and rubbed around inside the cardia to discover latent bleeding that may have stopped for the moment. Bleeding here would of course be controlled temporarily by tamponade with the inflated bag.

Third, the ulcer must be removed or exteriorized from the duodenum. If simple gastrectomy is done, sectioning proximal to the ulcer and leaving it *in situ*, bleeding may continue or recur. We had one death from this cause, early in our experience, despite suture-ligature of the bleeding artery.

Case Report: R.H., aged 70; #11325; operation Nov. 3, 1948, for exsanguinating hemorrhage. Gastrectomy, leaving in place a duodenal ulcer deeply eroding the head of the pancreas. Bleeding vessel controlled by suture-ligature. Line of section proximal to the ulcer. Normal recovery for ten days,

up and about, ready to go home. Death from sudden exsanguination. Autopsy showed recurrent hemorrhage from the same ulcer, situated within the normally healed duodenum.

This technical point, removal of the ulcer, sharply differentiates the operation for hemorrhage from the usual interval gastrectomy, in which the ulcer may be left in place without risk, and with every expectation that it will heal.

Death from hemorrhage occurred in two other cases whose desperate condition at surgery seemed to positively forbid the tedious dissection needed to get the ulcer out.

2. THE DUODENAL STUMP

When the ulcer is removed or exteriorized, there is often a great deal of difficulty in securely closing the duodenal stump. Its secure closure is the second vital part of the operation.

If the ulcer is high enough so that normal duodenum can be safely dissected from the pancreas, removing the ulcer, the usual closure of the stump is sufficient.

When the ulcer deeply penetrates the pancreas, however, there is often a great deal of surrounding scar, offering poor tissue to hold sutures in closure. If the duodenum is then simply cut off below the ulcer, leaving it *in situ*, and the duodenum sutured as well as possible through this scar, leakage may occur. We had one death from this cause, early in our experience.

If resection is done at a low enough level to reach sound duodenal wall on the medial side, the common and pancreatic ducts are endangered, a fact recognized by all surgeons in this field. We have had a death from this cause in an interval gastrectomy, with one of our consultants, an excellent surgeon, at the table.

TECHNIQUE

Attempts have been made to solve the problem of stump leakage in one of four ways—drainage to the region of the stump, internal drainage by a Levine tube inserted through the stoma into the remainder of the duodenum, deliberate duodenostomy as described by Welch,² and, in our own series, closure by fashioning a cuff of duodenal mucosa to serve as an inner suture line.

Taking these methods in order: Penrose drainage to the region of the stump is not dependable. We depended upon this procedure in one case where scar tissue infiltrated the suture line; and general peritonitis and death followed in spite of drainage.

Case Report: W.G., age 45, #32771. Operation Nov. 24, 1952, for massive hemorrhage. Gastrectomy, removing the ulcer. Stump closure not really satisfactory because of dense scar about the ulcer. Several Penrose drains and a small catheter left near the stump to act as a tell-tale and/or as an exit for extravasated fluid, in case of leakage.

Some pain was noted five days after operation and a drain loosened with continued suction on the catheter, no fluid appeared. Some fluid did appear upon loosening several drains the following day, and the patient appeared a little better. Re-operation two days later disclosed general peritonitis from duodenal leakage, and the patient later died. Thus, the drains acted neither as an immediate tell-tale, nor as an adequate exit for duodenal contents.

An explanation is that the drains, soon after operation, became walled off in a little pocket by themselves; and the effused fluid did not appear until it had first digested the fibrinous wall of this pocket. Meantime, it had spread widely in the general peritoneal cavity.

The second procedure, internal drainage by a Levine tube, is equally undependable. We used it in one patient, and for two days it worked perfectly. On the third day the character of the drainage abruptly changed, and X-ray then showed the tube regurgitated into the stomach, evidently by resumption of normal duodenal peristalsis.

This man recovered, but not because of any protection offered by the inlying tube. Protection is not only needed for two days, but for five or six or seven, for leakage may occur late.

The undependability of this technique has been noted by Grove,³ of Atlanta, who has tried suturing the tube in place with catgut. It may be possible that a cotton suture would hold the tube in place long enough.

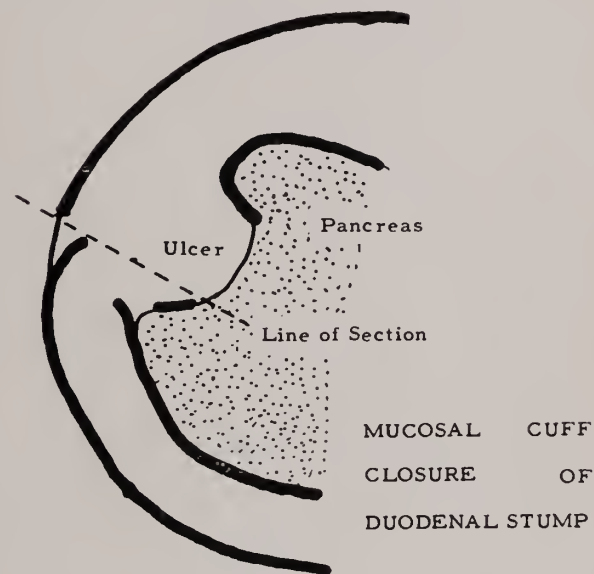
The third procedure, the catheter duodenostomy of Welch, has the sanction of several writers of authority. We used it in one patient with recovery, but only after a very complicated convalescence, with wound digestion, disruption, subphrenic abscess, etc.

We have recently tried it in another case, with complete failure of healing, death occurring ten days after surgery from massive hemorrhage from the original ulcer, bathed in the leaking duodenal contents. I suppose that in some way we failed to follow the exact technique used by Welch; in any case, we cannot be satisfied to continue the method at the present time.

Possibly, as a variation, the catheter might be introduced through a stab wound in the duodenum,

instead of through the suture-line at its end; but a duodenostomy differs from a jejunostomy in that the bowel cannot be brought to the parietes, but remains fastened down in a deep pocket, unprotected save by some omentum tucked around it, and, therefore, by no means as certain to heal without leakage.

The fourth method: we have adopted in eight patients a mucosal cuff method of closure, so far without leakage; and offer it as a preliminary report of a technique that may prove of value. It is quite tedious and requires delicate dissection with fine instruments to avoid button-holing the mucosa.



Technique: Upon opening the duodenum there will be found the ulcer, excavated into the pancreas, but there will be normal mucosa distal to the ulcer. It will usually be found possible to fashion a short cuff of mucosa below the ulcer, resembling the foreskin, without disturbing the duodenal wall otherwise where it is adherent to the pancreas. This cuff is carefully inverted as the first layer of closure, to serve as a water-tight barrier against contact of the duodenal contents, with the outer reinforcing suture-lines. The remaining lateral duodenal wall is then sutured to the scarred ulcer area as well as possible, and perhaps covered by omentum and adjacent pancreatic capsule.

The ulcer is left *in situ*, and is thus exteriorized from the duodenal lumen. The bleeding point is simply controlled by a suture-ligature.

Rationale: Duodenal juice is highly corrosive, and will digest anything except the normal duodenal mucosa. It must be prevented from contact with suture-lines that are partly in scar tissue, and this

the inner suture-line of the mucosa is apparently able to accomplish.

Sometimes with a deeply placed duodenum, infiltrated by surrounding scar, the microscopic dissection of the whole cuff of mucosa would appear impossible; but at least that portion of mucosa on the adherent pancreatic side can be dissected up, and I think this variation may be allowable, although I have not yet tried it. Such closure would resemble the method described by Bsteh,⁴ illustrated in Claude Welch's handbook, with the difference of presenting a raw edge of mucosa, instead of a surface, on the pancreas below the ulcer. I am sure that a raw edge would be more likely to heal, than an undisturbed surface.

COMMENT

It is to be noted that if leakage does occur, reoperation must be prompt, and may be successful, with free drainage of the area, in preventing general peritonitis. The diagnosis, however, may be quite obscure, and in two of our fatal cases was made late. It is probably wise, upon any suspicion of leakage, to make a short subcostal incision under local anesthesia, to rule it out.

It is of course a fact that some duodenal leakage is not necessarily fatal, for the leak may be small and cause only local trouble, instead of general peritonitis. In this case, the symptoms are mild, unnoticed until a little drainage appears in the wound.

SUMMARY

This analysis of our experience indicates that massive bleeding from peptic ulcer can usually be controlled by medical means, and should be so con-

trolled, if possible. If this fails, surgery must be undertaken. The procedure is gastrectomy with removal or exteriorization of the ulcer from the remaining duodenum. Secure closure is imperative, but may be extremely difficult. The most reliable method in our hands has been the fashioning of a cuff of duodenal mucosa which, when precisely sutured, serves as a barrier against contact of duodenal contents with the outer suture-lines.

If this proves actually impossible, the remaining alternative is the deliberate duodenostomy of Welch, probably best done through a stab wound below the duodenal stump, rather than through the suture-line at its end. As Dr. Welch has indicated, however, in his classic handbook,⁴ this is a procedure to be used only as a last resort.

One final word: When an ulcer patient has experienced one severe hemorrhage, it is my considered opinion that gastrectomy should be advised in the interval, before another hemorrhage occurs. This is because gastrectomy in the interval has a mortality of 2 or 3%; whereas emergency operation for hemorrhage has a mortality of 20 or 30%.

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To act with common sense, according to the moment, is the best wisdom . . . and the best philosophy, to do one's duties, to take the world as it comes, submit respectfully to one's lot, bless the goodness that has given us so much happiness with it.

—HORACE WALPOLE

Resolve to edge in a little reading every day, if it is but a single sentence. If you gain fifteen minutes a day, it will make itself felt at the end of the year.

—HORACE MANN

Ambulatory Electro-Cerebro-Therapy

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AMBULATORY ELECTRO-CEREBRO-THERAPY has an increasingly important place in the fight against mental illness. This is especially true in those cases where the sufferer is gainfully employed or is incarcerated in a penal institution. Ambulatory treatment saves some patients from full development of their disorders⁵ and from all sorts of mental anguish incidental to hospital or institutional treatment. This is particularly true and important in mild cases. In cases such as affective disorders, electro-cerebro-therapy has come to be regarded as specific prior to psychotherapy, especially in the treatment of depressed patients.¹ When employed early, it will do more than any known type of therapy to prevent suicide.⁷ Furthermore, it has long been an established fact that these treatments are of great value in shortening the course of a high percentage of depression and involutional melancholias.³ Unlike other well known types of therapy, any complications arising from electro-cerebro-therapy can be taken care of in any well equipped office without the need of hospitalization or more than two assistants. Frequently, only one psychiatric nurse was employed during these procedures, and, thus far, not a single fatality nor case of apnea requiring resuscitation was encountered. The above is not meant, however, to imply that hospitals are not important in the treatment of mental illness, but in many cases this is a luxury, while in others the patient considers himself a lunatic.

In the late thirties when shock therapy was instituted by Sakel, von Meduna and Cerletti and Bini, treatment of mental illness became more successful than at any other time in history. Along with this process, a modification in the techniques has also taken place with the result that early ambulation, as advocated by the surgeons, is being practiced by the psychiatrists as well. The technique modification (focal, unipolar, biopolar and multipolar approaches), as well as the type of current utilized, such as alternate and undirectional, have led to a

procedure, which in the hands of trained personnel can be applied not only in the doctor's office, but even in the home, as well as in trailer camps or even on the floor of special isolation prison cells where beds are not permitted. Rubber gloves, rubber sheets and a mouth gag are no longer necessary, and treatment in an iron bed in the country is almost as safe as in the doctor's office.

Ever since electro-cerebro-therapy was introduced, the *modus operandi* of the current used has been obscure. Whether there is an electrical dissection of the frontal-thalamic fibers to the dorso-medial nucleus of the latter, or whether it is the increase in cholesterol content, etc., has long been questioned. Many theories have been advanced, most of them falling into either of two schools of thought—the somatogenic and the psychogenic.⁴ Included in the former is the theory that a destructive process takes place, or that a change in the vegetative phase of life is incurred, or, more likely, that a powerful diencephalic discharge takes place. Some postulate changes in the automatic nervous system, while others attribute its results to oxidative, metabolic or enzymatic changes.

In the psychogenic school, some feel that the basic drives for self-preservation are stimulated, while others maintain that it produces a real psychotherapeutic shock. Another group favors a psychological effect on the ego or the inhibitive power of the cortex. Direct action through fear, amnesia, atonement or vital instincts has also been postulated as leading to recovery.

During this year, some clinicians have expressed the thought that electro-cerebro-therapy is now unnecessary. However, even the recent application of the ataraxic drugs during the past two years has not been definitely established as a substitute for the present type of treatment, and it is believed that there is hardly a physician in our field who would like to discard E.C.T. as a part of the standard procedure in mental illness.

It is the purpose of this paper to compare the effects of E.C.T. in two widely separated groups, one made up of factory workers, the other being composed of inmates from the State Penitentiary.

A total of 94 patients were treated, 43 being tobacco

The motion picture which accompanied the presentation of this paper was made with permission of W. Frank Smith, Superintendent of Virginia State Penitentiary and Miss Elizabeth M. Kates, Superintendent of the State Industrial Farm for Women—as well as written consent from each inmate.

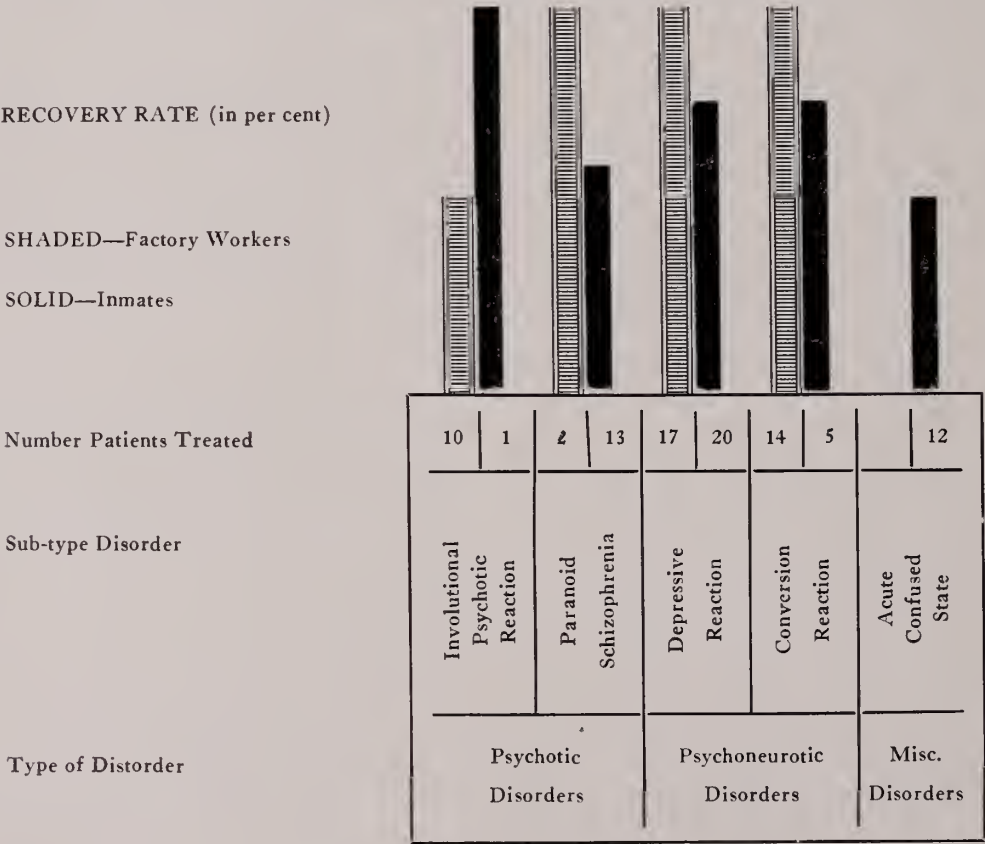
Presented at annual meeting of The Medical Society of Virginia, Richmond, October 16-19, 1955.

workers in local industry, the remaining 51 being inmates of the State Penitentiary. The psychiatric disorders treated were those of psychoses and the psychoneuroses. Among the factory employees, 14 were women, the overall average age of both sexes being 39.2 years. All were white. These patients were treated for an average of 39.5 days. At the penitentiary, the average age of the inmates was 28 years, treatment extending over a period of 6.4 months. 38 males and 13 females were included in the group which contained 78% colored and 22% white inmates.

The Reiter CW-47-B Electro-stimulator is used in the study. The patients are given treatment at any time of the day or evening, provided they have not eaten for four to six hours prior to treatment. The electrodes are kept in a dilute solution of sodium bicarbonate which is used continuously for a period of two weeks without changing. Mouth gags are omitted except when the patient has dental

clonic contractions. As a rule, the patient is able to leave the treatment room within 30-45 minutes, accompanied by an assistant. During the passage of the current, the physician holds the chin up while the two assistants hold the patient at the shoulder girdle and the hip joints. (When the progress was delayed, the therapist frequently have two treatment in rapid succession, after using Dr. Impastato's technique⁶ to determine if the patient was ready for the second convulsion). Whenever possible, an X-ray of the dorsal spine is taken prior to treatment. Less than 5% of the patients complained of backache, which usually subsided upon completion of therapy. When the treatment is over, the patient is placed on either side to insure postural drainage. After treatment, salicylates or other analgesic are given routinely, since post-treatment headache occurred rather frequently. Atropine was seldom used, while at no time are muscle relaxants introduced.

As was expected, the most significant and striking



defects. The electrodes are applied bitemporally soon after a state of anesthesia is achieved by a 5% solution of Pentothal Sodium. No special treatment table is utilized, ordinary beds with mattresses sufficing. The usual duration of the seizure is 45 seconds, ushered in by tonic, and terminating with

results were obtained in the depressive reactions (see chart). In the psychotic depressive group, both sets of patients responded very well, while in the psychoneurotic group, all seventeen patients at the penitentiary responded to the treatment, as did sixteen of the twenty factory workers treated. In the

paranoid psychosis, the two factory workers who were treated improved, and seven of the thirteen inmates treated for this disorder showed marked improvement. Significant results were obtained in the treatment of conversion reactions, with all fourteen of the workers recovering and four of the five inmates improving.

OBSERVATIONS AND CONCLUSIONS

The results obtained in both the psychotic and the psychoneurotic depressive reactions are in agreement with the findings of earlier workers,² although our recovery rate is somewhat higher. This may be attributed in part to earlier recognition and treatment of these disorders. In the group of inmates treated for psychoneurotic depressions, most were reactive in nature, the diagnosis being made soon after confinement. It is to be expected that early and intensive treatment of such cases would be rewarded by a high recovery rate. Within the depressive group of factory workers availability of treatment and probably financial considerations prompted early action.

An average of only 25.5 days was lost from work by the factory group, although, as stated, treatment extended over a period of 69.5 days, each patient receiving an average of 10.9 treatments. In the penitentiary group, it was not possible to determine work-days lost because inmates undergoing any therapy were removed from regular assignments. Treatment here was often for symptomatic relief and, thus, the period of treatment was much longer than for the factory group, averaging 6.4 months in duration, and 4.3 treatments per patient. 86% of the factory workers were able to return to work, and comparable results were obtained in state institutions (84.3%).

It is of interest to note that a surprisingly low percentage of the patients relapsed following treatment, fewer than 5% requiring additional therapy. The majority of relapses were confined to the paranoid schizophrenic patients. This is in keeping with the findings of other authors.

The question may arise whether addiction to pentothal sodium takes place during, and after, therapy is completed. Though there usually develops a tolerance for the drug, the average increase in all cases was but 1.64 c.c. among the factory workers, and 1.6 c.c. among the prisoners. 6.46 c.c. was sufficient to induce anesthesia in the factory workers and 6.9 c.c. was required by the prisoners. It is of interest also to note that a decreased tolerance developed in 19% of the workers and in 22% of the prisoners.

It is significant that all of these patients were

treated on an out-patient basis, only about 5% of the inmates being confined to special cells during the period of treatment. No workers were isolated during therapy. The majority of the patients treated either at the penitentiary or elsewhere were permitted and encouraged to lead a normal life even during treatment. The psychological effect of this practice upon the patients is obvious.

The results of ambulatory treatment upon the two groups would seem to indicate that this type of therapy imposes fewer restrictions upon the patients, yet gives results comparing favorably with those obtained under optimum conditions for E.C.T.

SUMMARY

1. A technique for ambulatory electro-cerebrotherapy has been described.
2. Of 94 patients treated for various psychotic and psychoneurotic disorders, best results occurred in the patients with depressive reactions. Comparable results were obtained for both groups.
3. No addiction problems arose and no death or confirmed fractures resulted.
4. 85.5% of all the patients returned to work. It was not necessary to confine patients during treatments.
5. Results of therapy were comparable to those obtained under hospitalization.
6. Though the tobacco workers were treated for a period of 69.5 days and the prisoners for a duration of 188 days, the recovery percentage is practically identical, even though the average number of treatments for the inmates was 4.3, while that of the tobacco workers was 10.9.
7. Due to limited facilities and staff, prisoners could not be treated as regularly as private patients; therefore, these treatments had to be given over a period of 6 months and the inmates frequently went to work while awaiting the next call for treatments, yet this apparently adverse situational factor indicates that, when patients are treated during the incipient stages of their illness, the number of treatments necessary for remission can be reduced by over 50%.

Acknowledgement. The authors are indebted to Dr. Thomas R. Butterworth, Jr., and to the extern, Mr. Henry J. King for their assistance rendered over a period of two years in the compilation of this paper.

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Prefers Steam Kettle.

The good old steam kettle works better than a mechanical humidifier for treating a childhood respiratory disorder, said a Haifa, Israel, physician. Dr. Abraham Friedman said that the steam kettle is better because it can produce more moisture than a cold-air mechanical humidifier, the now generally accepted apparatus. Moist air helps prevent the blocking of breathing passages which may occur in an acute inflammatory disease of the larynx, trachea, and bronchi. He explained that in breathing, the air enters the respiratory tract at room temperature and humidity. On its way down the air absorbs moisture from the membrane lining the passages. It finally is exhaled at body temperature and saturated with water. The difference in temperatures and humidities between the air inhaled and exhaled results in a continuous loss of water from the respiratory tract.

In acute respiratory disease, the loss is speeded up and the breathing passages eventually may be blocked by the formation of a dry crust on the mem-

branes. The drier the inhaled air, the more water it absorbs from the membranes, thus increasing their "drying out." To prevent obstruction, the air breathed in must be as moist as the air breathed out. This means that the temperature and humidity of the air inhaled should be approximately equal to the temperature and humidity of the air exhaled.

Since there is a ceiling on the amount of water air will hold at a specific temperature, the air temperature must be raised to increase water content. The mechanical humidifier may raise water content, but the low-temperature air cannot hold as much water as high temperature air would, he said, adding that a steam kettle accomplishes both things.

Dr. Friedman warned that necessary precautions must be taken against the hazards of a burn and the development of a high fever in the child.

Dr. Friedman, of the department of pediatrics of Rambam Government Hospital, Haifa, made his report in the November Archives of Otolaryngology, published by the American Medical Association.

Peripheral Vascular Disease

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OUR KNOWLEDGE of many of the peripheral vascular diseases is limited and often we spend most of our time discussing the rare maladies which are seldom seen and difficult to treat. Therefore, our discussion will be confined to those diseases most frequently encountered in our private practice and in the peripheral vascular clinic of the Medical College of Virginia Hospital.

You will agree that varicose veins are one of the most common of the peripheral vascular disturbances. There are two types of varicose vein, the primary and the secondary. The primary type develops spontaneously and is supposed to be caused by hereditary weakness in the walls of the veins but is often associated with obesity, pregnancy and poor posture. The secondary type occurs after venous obstruction and from many causes, such as tumor, trauma, mechanical pressure, infection and thrombophlebitis. At times extensive varicose veins do not cause any symptoms but often there is secondary edema, numbness, tingling and pain in the extremities. Many cases of varicose veins are complicated by thrombophlebitis. The treatment of varicose veins is primarily surgical, and most patients demand surgery for cosmetic reasons, but when complicated by thrombophlebitis or by chronic venous insufficiency they may become a serious problem. We should attempt to recognize symptoms due to varicose veins and advise the patient to seek surgical aid.

Venous obstruction is divided into two categories, thrombophlebitis and phlebothrombosis. Both of these conditions should be differentiated from varicose veins. Acute thrombophlebitis is not difficult to diagnose. The patient may have chills and fever and the veins are thickened, tender, and inflamed. These cases start with primary infection in the veins, although it is difficult to obtain a positive culture from the vein. The focus for the phlebitis may be an ulcer or cellulitis about the foot or lower leg. Many cases start with a simple fungus infection about the feet or as a minor cellulitis and then spread to the vein. Treatment consists of elevation of the limb,

hot wet compresses, complete rest, antibiotics, anticoagulants and, if necessary, ligation of the saphenous vein. A more formidable type of vein disease is phlebothrombosis. This condition may insidiously follow operation or occur during pregnancy or postpartum. The involved limb, at the onset, may show minimal swelling and tenderness of the vein and is often overlooked until the patient suddenly develops an embolus, such as a pulmonary embolism, and becomes critically ill. It is important to diagnose this condition early and, if discovered, ligation of the superficial femoral vein should be performed and anticoagulants given. These are very dangerous cases because the thrombus in the vein is loosely attached to the wall and may easily break off, causing a pulmonary embolus. In thrombophlebitis, the thrombus is firmly attached to the vein and there is less danger of its detachment except from its proximal end. Chronic venous insufficiency follows thrombophlebitis or phlebothrombosis which has been inadequately treated.

One of our major problems in the peripheral vascular clinic is the treatment of the stasis ulcer. These are actually post-thrombophlebitic ulcers, although they are often described as varicose ulcers. They may become very large with much serous drainage and secondary infection. Sometimes it is almost impossible to obtain healing. Our treatment is to thoroughly cleanse the ulcer, apply an antibiotic ointment and foam rubber application, sterile dressings, Gelocast bandages or an Unna's boot and superimposed Ace bandages. We have seen remarkable results in the peripheral vascular clinic in some of these cases, but they must return every week, or even twice a week, for reapplication of bandages and dressings. If healing does not take place within a reasonable length of time, we advise a long period of hospitalization with complete bed rest, adequate treatment of any nutritional disturbance, transfusions, antibiotic and ligation of all the communicating veins leading to the ulcer area, followed by intermediate thickness skin grafts. We have followed cases of this nature for as long as three months in the hospital before obtaining adequate results. It is possible to prevent long hospitalization stay by a vigorous treatment program. However, the real treatment

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Presented at the Annual Meeting of the Virginia Association of Chiropodists, May 13, 1955.

Received for publication October 3, 1955.

begins with early recognition of the disease. Careful examination of the extremities before and after surgery of any kind and immediate treatment of even a minor superficial thrombophlebitis is necessary to prevent chronic venous insufficiency. Chronic venous insufficiency is the end result of long standing thrombophlebitis or phlebothrombosis. It is very discouraging to attempt treatment of a chronically edematous leg which often develops large ulcers. We try elastic bandages, rubber stockings, diuretics and even Kondoleon types of operation, without much success. After chronic venous insufficiency develops, the patient will not lose a limb but he may be quite unhappy for the rest of his life. It is worthwhile for us to try to prevent complications of venous obstruction whenever possible.

Raynaud's disease is a primary condition which is quite rare. According to definition, it usually occurs in young females who are of the emotional type but we have seen Raynaud's disease in males also. The major diagnostic symptoms are multiple color changes; for example, when the patient is exposed to cold he may develop marked pallor of the digits, either the hands or toes, or both. There is a symmetrical involvement; following pallor, if the extremities are exposed to heat they will become cyanotic and later a deep redness of the digits develops. There may be slight swelling and paresthesia of the extremities, very often excessive sweating, later, tip necrosis and even scleroderma. The pulses in the involved extremities are easily palpated. We consider this condition primarily due to a vasospastic reaction in cold-sensitive individuals. The intima of the digital vessels may be thickened. This damage to the wall of the blood vessel is secondary to the vasospastic reaction and not a primary situation, although Sir Thomas Lewis thought that these patients had damage to the intima of the vessel, primarily, and were cold-sensitive individuals. Most American investigators believe that Raynaud's disease is a vasospastic reaction in individuals who are sensitive to cold. The primary disease is rare but Raynaud's phenomenon is a common finding in patients with organic peripheral vascular disease. This means that many patients with thromboangiitis obliterans or arteriosclerosis obliterans will develop multiple color changes on exposure to cold or warmth, probably due to a vasospastic reaction in their diseased limbs. Color changes may also follow work trauma or surgical trauma to the vessels of the extremities. For instance, we often see an individual, such as a typist, who will develop color changes sim-

ilar to Raynaud's, in two fingers—maybe the two fingers she uses most. These patients may respond to rest or change of occupation. When Raynaud's disease occurs as a primary malady, one must consider sympathectomy. The fingers and toes must be protected from secondary infection. There may be tip necrosis of the fingers. There is pain and paresthesia; antibiotics may help. Fungus infection is common, especially if there is excess sweating. We try to reduce the sweating as much as possible by the use of atropine or some of the newer preparations, such as Banthine. Occasionally vasodilating drugs may be necessary. Improvement is not due to the vasodilating action of the drug but to the drying properties of the medication. Fungus infection must be treated vigorously with either potassium permanganate or Desenex ointment.

Thrombo-angiitis obliterans and arteriosclerosis obliterans constitute 90% of our cases and of these only about 5% are thrombo-angiitis obliterans. This disease is a very fascinating malady. We have not progressed in our efforts to determine its cause. Our idea is that it is a stress reaction similar to a collagen disease. In recent years we have divided our cases into two groups. In one group are those individuals who not only have peripheral manifestations of the disease, but also develop occlusive changes in the brain, coronary and visceral vessels. Those with impairment of these structures, besides the peripheral vessels, are most unusual. They are young people who develop a myocardial infarction or cerebral thrombosis at an early age and also have involvement of the peripheral vessels. Sprunt stated that Buerger's disease was a generalized disease but, because of the peripheral symptoms, the other organs were overlooked. Autopsy studies on these individuals will often show they had involvement of the viscera, blood vessels of the heart, lungs, brain and kidneys, and that the disease was generalized. Only a few cases of this type are recognized prior to death. We have three cases that come to the clinic once every month, who have had either strokes or coronaries, or both, plus peripheral vascular disease. Naturally, with so much involvement of their brain or their coronary vessels, they are not troubled too much with their feet. The larger group of patients have symptoms only of the extremities. These are patients under 50 years of age who have pain in the legs after exercise, relieved by rest. Migratory phlebitis occurs in about 30% of these cases. A young person with definite evidence of obliterative disease in his peripheral vessels, plus a migratory phlebitis, prob-

ably has thrombo-angiitis obliterans. The pulse is absent or diminished in the involved extremity and gangrene may occur early. Unfortunately, very few cases are recognized early. The patient will not come to see you until he has claudication. He begins to have cramps in his legs and thinks he has a "charley horse". At that stage it is already late; he has lost his pulse. Perhaps the only case we might recognize would be one that has migratory phlebitis, and then we would have to guess, because the better diagnosis would be thrombophlebitis. If the patient develops very severe pain, nerve crushing may help. Sympathectomy is certainly the surgical procedure of choice and sometimes we try injections of typhoid vaccine to increase blood flow.

Arteriosclerosis obliterans is our major disease problem, both in private practice and in the peripheral vascular clinic, and we must admit that medical research has not found an answer to the prevention or lessening of the progression of the degenerative vessel changes due to arteriosclerosis. The diagnosis of arteriosclerosis obliterans is not difficult. These individuals are in an older age group than the thrombo-angiitis obliterans cases. They have intermittent claudication and color changes similar to those in thrombo-angiitis obliterans. Also, they have loss of pulse and very often they may have calcification in the blood vessels; however, this is not too important. The calcification may only involve the wall of the vessel, leaving the lumen open, giving it a rigid wall, but the lumen is not obliterated and there are no symptoms of circulatory disease. We have seen very extensive calcifications in peripheral vessels, without claudication.

Prior to the complication of ulceration or gangrene, the patient's treatment is simple, but first we attempt to explain the entire problem to him so that he may understand the necessity for strict adherence to our instructions.

The patient is taught adequate foot care, the dangers of minor infections, the use of strong antiseptics and care in the removal of corns and calluses. Treatment of fungus infections is emphasized. Often ulceration and gangrene may develop rapidly following trivial infection. Smoking should be eliminated in patients with peripheral vascular disease, as smoking causes vasoconstriction and any vasospastic factor should be prevented. We try to educate these people in a method of walking. We do not want them to stop walking but they should not walk to excess and should stop just before they develop pain. To illustrate, a patient states: "I can walk

two blocks slowly, doctor, and I won't get pain, but if I walk fast I can only walk one block and then I get a cramp." Suggest that they saunter along as if they were older than they are, or as if they had arthritis. Sometimes placing an elastic bandage at the ankle or about the knee, so that the patient has to walk with a limp, is effective. You may find that the patient may be able to walk a half mile or six or seven blocks, if he saunters or limps. The purchase of a cane to aid in slowing the gait is helpful.

When a patient develops ulceration or gangrene he should be immediately hospitalized. The limb should be placed at rest, antiseptic dressings applied and antibiotics given. Nerve crushing may be necessary for severe pain and whirlpool baths at times will help, especially if he has minor or indolent ulcers. We do not believe in using whirlpool baths on gangrenous limbs but the minimal type of infection may be helped by whirlpool baths. When whirlpool baths are given, we have found that the temperature of the body is elevated about two degrees, which indicates increased blood flow over the entire body for a period of about an hour or two. If you are using whirlpool baths, do not allow the patient to leave the office too soon following therapy. He may be very susceptible to colds or infections and immediately leaving a hot atmosphere with a temperature of 100 degrees or maybe 101 degrees may lower his resistance to infection.

Many clinics advocate sympathectomy, even in arteriosclerosis obliterans. We have not been impressed with sympathectomies in this group. Occasionally a case will improve, especially if the limb has the ability to perspire, for the cold, wet extremity may respond to sympathectomy better than a cold, dry extremity. They have some vasospasm that might be relieved. There are many vasodilating drugs, such as, Priscoline, Dibenzylamine, Ronicol, Ilidar and Nicotinic Acid. I have not found a drug that is a satisfactory vasodilator. The problem in a vasodilating drug is that if it works at all it produces generalized vasodilation. The limb that has good circulation will get more blood, but the limb that is impoverished will get less blood. Histamine and Priscoline may be given intra-arterially in a diseased limb. Flushing and vasodilation is produced in the leg but the injection of a strong drug into a damaged artery may cause a thrombus or produce a shocking reaction. We have tried these drugs without much success.

In conclusion, we have discussed varicose veins, thrombophlebitis, phlebothrombosis, Raynaud's dis-

ease, thrombo-angiitis obliterans, and arteriosclerosis obliterans. We believe that you have a wonderful opportunity to help the physician evaluate peripheral vascular problems. You may see these patients before the family physician and actually might prevent the complications by recognizing peripheral vascular disease early. Some of the fundamental considerations in peripheral vascular disease are establishing the diagnosis, adequate foot care and

elimination of fungus infection, and satisfactory discussion of the problem with the patient. The use of antibiotics has saved many limbs by preventing complications. Cooperation between the chiropodist, physician and surgeon is important for successful care of these patients.

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Placebos May Be Harmful.

Placebos, harmless substances given as substitutes for medicine, may produce beneficial effects like those of the real thing, but they also may cause harmful side effects.

A placebo is an inactive substance or preparation which is given under certain circumstances to please or pacify a patient. It also is used as a "dummy" for comparison with real medicines in certain investigations.

Dr. Henry K. Beecher surveyed 15 studies, involving more than 1,000 patients, in which placebos were used. His report appears in the December 24 Journal of the American Medical Association.

The placebos produced "real improvement" in a wide variety of difficulties including wound pain, pain of angina pectoris, headache, nausea, effects related to cough and to drug-induced mood changes, anxiety, tension, and the common cold—all ailments with strong subjective responses. They also produced such side effects as dry mouth, nausea, sensation of heaviness, headache difficulty in concentrating, drowsiness, warm glow, relaxation, fatigue, sleepi-

ness, skin rash, and abdominal pain.

It is doubtful that the placebos, usually made of salt, starch, or lactose, chemically produced these effects. Rather it appears that the physical change was associated with a psychological reaction to suffering.

Dr. Beecher said that the severer the disease state the greater is the effect of placebos, both in giving relief to pain and in producing side effects.

Decided improvement, interpreted as real therapeutic effect, occurred in approximately 35 per cent of the patients given placebos in each of the studies. The relative constancy of the placebo effect suggests that "a fundamental mechanism" is operating in all these patients, one that deserves more study.

He noted that use and study of placebos offer "much of practical value," particularly in the understanding of certain basic problems in the action of narcotics and similar substances.

Dr. Beecher is from the anesthesia laboratory of the Harvard Medical School at the Massachusetts General Hospital.

General Nutritive Deficiency

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THERE are many causes of nutritional deficiency; some are known and others remain obscure. Calorie deficiency comes first; then protein deficiency even though there is an apparent adequate protein intake.

A deficiency may result due to economic reasons, obstructive lesions, and functional disorders of the alimentary tract. During certain states there is an increased calorie demand due to rapid growth, fevers, diarrhea, menstruation, child bearing, lactation, alcoholism, and metabolic disorders. Excessive degrees¹⁰ of underweight may seriously increase the risk of chronic illness. Although undernutrition may be protective against some of the diseases, it may predispose to pulmonary and other chronic diseases and may precipitate disturbance of the endocrine and nervous systems. The nutritional status of the person may be the deciding factor in whether or not a patient is able to get out of bed by himself to take care of his personal needs.

Following surgery the protein² requirement may rise to 160 gm. or more daily. While not eating and depending on intravenous fluids for calories, the patient may draw 100% of his protein requirement and vitamins from the body stores, while on a soft diet the protein intake remains low.

During bed rest there is a considerable loss of much protein added to the loss of plasma protein during surgery. When the post-operative diet is increased, the patient often fails to consume it.

The nutritional status of the patient is as important as the treatment of the disease.

Malnutrition is insidious, occurring over weeks or months, predisposing to poor surgical risk and the complications of infection with the depletion of plasma and tissue protein; the result is asthenia with its attending lack of endurance, resistance and reduced healing.

Wound healing and the rapidity of convalescence depend to a great extent on an adequate protein intake. During these periods of stress the body not only is required to maintain a normal nitrogen tissue intake but also supply enough nitrogen to replace that lost due to the rigors of surgery.

Most persons maintain a nitrogen intake of 9-12

grams of nitrogen daily, representing 75-118 grams of protein daily.

In severe infections, as much as 300-400 grams of nitrogen may be destroyed daily^{3A}. It is practically impossible to maintain this type of patient in nitrogen balance. This patient on a supposedly adequate diet is actually starved and must consume his own tissue due to the impossibility of maintaining an adequate nitrogen intake; it is then necessary to find a method of alleviating the protein requirement by the body. This may be accomplished by supplying an abundance of protein sparing food such as carbohydrate and fats.

Both carbohydrates and fats are protein spacers^{3B}, since they relieve the tissue protein of the task of furnishing energy. Carbohydrate has a specific sparing action quite apart from the energy it furnishes, because a similar sparing action cannot be brought about by fats possessing double the caloric value of carbohydrate. Carbohydrate has much more pronounced sparing action than fat when fed alone, however, when 50% of the calories are supplied by fat and 50% by carbohydrate, the protein sparing action is as great as one whose total calorie intake is derived from carbohydrate alone. Glucose is necessary for the body to synthesize amino acids into body protein.

It has been shown⁴ that a negative nitrogen balance can be corrected to a positive balance by adding enough calories to the diet in the form of a fat-carbohydrate emulsion.

Dietary fat supplement has a protein sparing action which is apparently more effective in reducing the S. D. A. of protein than glucose.² During starvation the carbohydrate stores are used first, then fat and lastly proteins, the length of time a man can fast depends upon his fat stores^{3D}.

In undernutrition the specific dynamic action of all foods is increased^{3E}.

In test animals the S. D. A. of protein may be increased 30% above the basal level; therefore, if weight loss is to be prevented, the total calorie consumption must be increased by 30%.

Since the body is able to synthesize fat from protein and carbohydrate, it may seem that a fat intake is not essential aside from the fact that fat is the

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Received for publication October 12, 1955.

greatest source of calories. Fat also supplies fat soluble vitamins and certain fatty acids necessary to health and which cannot be synthesized by the body^{3F}.

Fat in the diet is more slowly absorbed than carbohydrate and protein and it tends to delay gastric emptying time.

Fat stimulates the secretion of cholecystokinin² which in turn causes the gallbladder to contract. Fat emulsions may be contra-indicated in cholelithiasis.

Fat stimulates the secretion of enterogastrone² which is supposed to inhibit gastric motility and secretion.

Hunger and fatigue are experienced sooner on a high carbohydrate diet than on a high fat intake.

Fat not only furnishes more energy than carbohydrate and protein but is the only food material stored in the dry state^{3D}.

During the absorption of fat it is hydrolyzed into its constituent fatty acids and glycerol^{3C}.

Non-emulsified fats^{3C} are hydrolyzed slowly and emulsified fats much more readily. Choline plays an important part in the transport and storage of fat. Betaine and casein apparently exert similar effect as choline. The activity of casein is due to methionine. Methionine exerts its lipotropic action by transferring its methyl groups to ethanolamine with the formation of choline. Betaine acts as a methyl donor. When these lipotropic factors are not available in the diet, fats accumulate in the liver. Studies with tracer elements indicate that choline accentuates the rate of phospholipid turn-over in the liver and kidneys.

Fats in the diet play a dual role; part being used in the synthesis of phospholipids and part stored as fuel. One gram of fat provides 9.3 calories of heat⁸.

It appears⁹ that patients maintained on diets containing large amounts of vegetable fats consistently have a marked fall in plasma cholesterol and usually phospholipids. This refutes the idea *per se* that a high fat intake is always associated with relative elevation of serum cholesterol. The reason for this is unknown, but it is postulated that some sterol in the fat has some direct blocking effect upon cholesterol phospholipid metabolism. Soybean sterols apparently interfere with the absorption of cholesterol.

Patients with fracture of the mandible⁴ fed on a fat emulsion showed no increase in blood total fat, neutral fat, phospholipid or cholesterol, no change in protein. A/G ratio, NPN, FBS, CO₂ contents Na & K, or cl. urine, urobilinogen, normal. Urinary ketones were noted is trace; amounts BMR normal.

Palatable fat emulsion⁵ have been prepared, using Tween 80 as an emulsifying agent. No toxic manifestations have been observed in mice fed Tween 80 over several generations; as much as 15 gm. of Tween have been fed to humans for several months without any untoward effects. Tween has been noted to increase the rate of absorption of vitamins A in rats. It also has been noted to decrease the amount of fecal fat in patients with sprue and subtotal gastrectomy. Patients with jejunostomies¹¹ fed on an enriched formula containing Tween were shown to improve fat absorption on a group¹² of patients undergoing operations on the upper digestive tract requiring a liquid diet. A fat emulsion was used to maintain a positive calorie and nitrogen balance. It was found that 83% gained weight; 40% had increased appetite; 46% no disagreeable symptoms; 81% able to tolerate formula; 21% refused because of nausea and vomiting.

Fat emulsions have been successfully used in tube fed patients². Patients in a negative nitrogen balance have come in balance when fat was added to the diet, demonstrating again the protein sparing action of fat.

Many studies of oral fat emulsions have been made to find a highly concentrated source of calories for the nutritional deficient patient. Many types of fat preparations have been used: olive oil, linseed oil, soybean oil, peanut oil, and butter—usually mixed with a sugar solution. The preparation of a palatable stable emulsion which is acceptable to the patient has been met with some difficulty. Many fat preparations are nauseating, causing gastric disturbance, and patients refuse to continue this type of treatment over any great period of time.

This study has been made to formulate a palatable fat emulsion of high calorie value which is acceptable to the patient.

Many preparations, using such agents as egg albumin, lecithin, glycerin and acacia, were tried. The use of these compounds seemed to increase the amount of gastric disturbance and at the same time have an adverse effect on the stability of the emulsion.

It was found that an emulsion of vegetable oil, sugar solution 60%, emulsifying agents 0.5% produced a highly stable emulsion. This emulsion contains 6 calories per c.c.; it is acid stable and does not deteriorate at room temperature. The fact that it is acid stable apparently accounts for its lack of gastric irritation. It is readily miscible with liquids, vitamins, cola drinks, milk, coffee, and fruit juice. It is essentially odorless at room temperature, and

tasteless when administered in ice cold chocolate milk.

Soybean oil—contents:⁸

	Carbon	Per Cent
Palmitic -----	16	6.5
Stearic -----	18	4.2
Olive -----	18	32.0
Linoleic -----	18	49.3
Linolenic -----	18	2.2
Arachidic -----	20	0.7
Lignoceric -----	24	0.1

Fatty acids containing from one to three carbon atoms have sharp odors; those containing from 4 to 9 have odors like rancid butter; the higher numbers of the series are practically odorless. Most of the saturated fatty acids occurring in nature are straight chain acids with an even number of carbon atoms.

The vegetable oil used in this fat emulsion is highly refined and contains fatty acids with a high carbon content which apparently accounts for the lack of odor, and absence of rancidity which many fat preparations develop. Non-sterile samples of the emulsion have remained stable for 6 months at room temperature without change in odor or taste. Samples were not tested longer than 6 months.

This emulsion has been tested on many patients over a three year period. It has been administered to patients of all age groups without any reactions. This preparation is considered to be a nutritional supplement, supplying a large amount of calories in a small volume. Generally one pound of weight is gained per pound of emulsion taken; however, many patients have made startling gains of 5 to 10 pounds on one or two pints of the emulsion. This unusual gain cannot be accounted for; there is no evidence of peripheral edema or the retention of fluid. Most of the patients have an increase in appetite, more energy and an increased feeling of well being. It was observed that weight gain is apparently enhanced by giving an adequate supply of B Complex vitamins.

The liver plays an important role in the metabolism of fat by forming phospholipids which are necessary in the transportation of fat from the liver to the normal fat depots. None of the patients on the emulsion developed fatty livers and it was not found necessary to add lipotropic agents as a preventive. It is known that choline is an important member of the B complex and that animals deficient in B complex develop fatty livers. It is on this basis that a liberal supply of B complex was administered with the fat emulsion.

The emulsion was administered to several patients with severe liver disease with an improvement in the blood proteins, reduction of peripheral edema and reduction in liver size.

SUMMARY

Twenty-eight patients have been studied while consuming an oral fat emulsion having a calorie value of 6 calories per c.c. The average amount consumed was 120 c.c. daily, equivalent to 720 calories. The emulsion was exceptionally well tolerated. Every patient who took the emulsion as directed gained weight without exception.

It is advisable to include a liberal B complex intake with the emulsion; this apparently enhances the metabolism of fat.

The use of fat emulsions in elderly patients has been studied. Probably one of the most important uses of this type of preparation is in the nutritionally deficient elderly patient. Fat emulsions help these people preserve and restore their body protein. The dentition of the elderly patient is usually poor and they are therefore in a state of chronic malnutrition. A mixture of a fat emulsion with milk provides a complete food which is evidenced by the patient response.

Several patients with advanced cirrhosis of the liver and ascites were treated with a fat emulsion. The patients all had a return of their blood proteins to normal, ascites subsided, and livers reduced in size. The use of fat emulsion in treating liver disease apparently has merit and should be investigated further.

The fat emulsion studied in this paper is called Nutramul, and was supplied through courtesy of Medi-Search Laboratories.

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SUBJECT	SEX	AGE	CASE SUMMARY	DAYS ON EMULSION	AMOUNT OF EMULSION CONSUMED	WEIGHT GAINED LBS.	COMMENT
1	M	48	Large lung abscess progressive wt. loss no appetite (now in hospital).	6	24 Oz.	6½	Increased appetite. Likes emulsion. no gastric disturbance.
2	F	34	Broncho pneumonia, asthma, and chronic alcoholism	7	28 Oz.	6	Tolerated well, no regurgitation; appetite increased.
3	F	76	Fracture cervical spine—malnourished	14	32 Oz.	10	Refused most solid food; accepted emulsion well, emulsion supplied most of calorie intake.
4	M	80	General senility	14	4 Oz.	10	Able to get out of bed and walk more alert—remarkable recovery.
5	F	74	Pneumonia and malnutrition	21	48 Oz.	5½	Improvement in strength and energy.
6	F	79	Congestive heart failure, hyperthyroidism—too weak to walk—malnutrition	1	.....	35	Gained 7 lbs. in one week; able to get up and walk. Has taken emulsion for over a year. Takes 4 oz. daily. Wt. now 125.
7	F	34	Underweight—poor appetite—nervous	90	Unknown	5½	Poor co-operation, would not take emulsion regular, poor response.
8	M	17	Underweight	10	32 Oz.	10	Likes emulsion, feels better.
9	M	35	Duodenal ulcer and underweight	21	48 Oz.	3½	Eats very little, feels better when taking emulsion, no gastric irritation.
10	F	44	Advanced cirrhosis of liver, chronic alcoholism—peripheral edema—liver down four finger breadths.	12	40 Oz.	10	Reduction of edema—decrease in liver size, appetite improved.
11	M	59	Carcinoma of liver, weighed 104 before operation	100	400 Oz.	40	Reduction in edema and ascites, liver could not be felt at end of 3 months; able to do more work.
12	M	40	Lobectomy right lung for for tuberculoma	28	112 Oz.	7	Rapid gain in strength.
13	M	28	Underweight	60	Unknown	7	Took emulsion irregularly.
14	M	28	Nervousness, underweight	90	Unknown	15	
15	M	35	Chronic alcoholism malnourished.	45	Unknown	7	Took emulsion sporadically.
16	M	48	No energy, tires easily at work, can't eat	55	220 Oz.	12½	More energy, stronger, able to perform work without difficulty.
17	F	23	Chronic alcoholism	30	120 Oz.	22	Reduction of edema and ascites, greatly improved, liver decreased in size and firmness.
18	F	33	Progressive weight loss, inanition with peripheral edema, has been treated with vitamins and high calorie diet without benefit	7	28 Oz.	8	Appetite improved, strength increased.

SUBJECT	SEX	AGE	CASE SUMMARY	DAYS ON EMULSION	AMOUNT OF EMULSION CONSUMED	WEIGHT GAINED LBS.	COMMENT
19	M	30	Underweight	28	116 Oz.	9	Increase in strength and appetite.
20	F	49	Underweight	5	16 Oz.	3½	
21	F	42	Underweight	18	16 Oz.	2½	
22	F	14	Underweight	19	32 Oz.	3	
23	F	27	Underweight	50	No record	4½	Poor co-operation.
24	F	40	Underweight	46	No record	4	
25	F	30	Underweight	30	16 Oz.	4	Took only sporadically.
26	F	32	Underweight	14	.....	2
27	F	42	Underweight	7	16 Oz.	4½	
28	M	29	Cirrhosis of liver and ascitis, liver down 4 F.B., serum Alb. 2.6	30	96 Oz.	15	Dramatic improvement—took emulsion well—treatment consisted of emulsion plus vitamins.

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"Hormone Controls Bleeding"

TO THE EDITOR:

In the December issue of the Virginia Medical Monthly, there is a short abstract under the heading "Hormone Controls Bleeding", taken from an excellent article by Dr. Harold C. Menger, entitled "Estrogen Given Parenterally to Control Epistaxis and Hemorrhage After Adenoidectomy" which appeared in the J.A.M.A. for October 8, 1955. This abstract implies that Dr. Menger was the originator of this idea but in the very first paragraph of his article, Dr. Menger denies he is entitled to this credit. He is, however, the first to apply this theory and therapy to post-adenoidectomy bleeding.

The December 3rd issue of the J.A.M.A. contained a letter from Dr. Joseph J. Gertner in which he stated the connection between hormones and bleeding was mentioned in the literature of the early 1930's. He then went on to say that "after practicing medicine for many years, one hears of many new discoveries that are not really new or discoveries". I wrote to Dr. Gertner for his references and he replied that at this time he was unable to ascertain the source of his information. A letter was sent also to the Library of the A.M.A. requesting a search of the literature between 1925 and 1940, and, except for the abortive attempts to relieve hemophilia with estrogens, only one reference to the use of hormones for bleeding was found—(DeSilva, E. B., Illinois Medical Journal, 69:81, 1936). In this article DeSilva reported the value of repeated small dosages of estrogens to control what I believe to be another form of spontaneous hemorrhage—delayed posttraumatic and postoperative bleeding. He reported 8 cases and he considered all his patients to be permanent bleeders.

I was entirely unaware of this article when in 1937 I began using estrogens for bleeding. An article was published in the pages of the Monthly in 1941 and the opening statement was: "The purpose of this article is to attempt, through some illustrative cases, to connect spontaneous bleeding with the endocrine system by showing that by attacking the existing endocrine status, the hemorrhage promptly ceases." The second article appeared in the Monthly in 1945. Four of the eight conclusions of this article are:

1. Recurrent spontaneous hemorrhage is a disease entity in itself.

2. It is a psycho-endocrine phenomenon with a mechanism similar to psychosomatic conditions.
3. A particular type of personality seems to be associated with this disease.
4. The clinical manifestations of deprivation of these substances (estrogens and androgens) or of an imbalance between them are more clearly seen in the vascular system, sex organs and the psyche but may have far reaching influences which are, as yet, not understood.

Neither DeSilva's nor my articles attracted much attention and are not mentioned in any of the texts devoted to Otolaryngology of that period or even now. However it has never been my intention to call attention only to the control of epistaxis with hormones. The objective was much broader and truly in accord with your title—"Hormone Controls Bleeding". Instead I have repeatedly stated the theory that epistaxis, about which little is known except it is a nuisance but seldom fatal, is just part of the larger picture of spontaneous hemorrhage. In another article entitled "Spontaneous Hemorrhage—A Clinical Entity with Special Reference to Epistaxis" published in the A.M.A. Archives of Otolaryngology during 1954, this theory again was reiterated and the disease described in more detail:

"Sudden, unexpected, and sometimes unsuspected hemorrhage is an extremely common phenomenon in man. Such bleeding in its milder forms is so general that there are few indeed who have escaped this experience during their lifetime. The commonest varieties, such as epistaxis in children or the rectal and uterine bleeding of middle age, are relatively benign. But in the latter years, blood frequently is released abruptly into an organ, cavity, or space, where its presence can have a calamitous portent or be the precursor of a catastrophe. This bleeding is of quite another sort, with its malignity augmented by inaccessibility and not uncommonly by the mystery of its location or even of its existence. If the hemorrhagic state is inevitable, one is fortunate indeed to have the focus of bleeding in the nose. The word "Spontaneous" is applied to this type of bleeding, with the full knowledge that no hemorrhage just happens without provocation or is, according to the once-prevalent notion, a means of reducing tension or disposing of excess blood. The term is not accurate and should be considered a misnomer, but it is particularly apropos in that it conveys the impression of sudden bleeding without preliminary warning. "According to this definition then, a hemorrhage, to be considered spontaneous, must happen with-

out a reason or cause—a fallacious assumption. So far, the search for more tangible origins has led to the discovery of damaged vessels and bleeding ulcers, but even these cannot always be found. In the brain and subarachnoid space, the blame usually is put upon small sacculations or aneurysms. That these dilatations are congenital is doubtful, but there is still no explanation of why they rupture, especially during and after stress. Another common form is the subintimal minute hemorrhages in coronary arteries that precede thrombosis and occlusion of these vessels. Hemorrhage of obscure origin also takes place in the gastro-intestinal and urogenital tracts, in the eye as well as beneath the conjunctiva, in the pancreas, the bronchi, the peritoneal cavity, and elsewhere. A broad and unique experience with estrogens in all of these conditions warrants the opinion that they are not dissimilar. . . . However, the source of bleeding and the cause for bleeding must be carefully differentiated. Lesions like ulcers in the stomach and duodenum or ruptured varices around the esophagus or the vesical neck may be the source but not the true cause of hemorrhage."

It should be of interest to know that the ability of ovarian hormones to produce hemorrhage had been recorded long before these substances had been actually identified. In 1905, J. Halban (*Archiv für Gynäkologie* 75:353) noted "the occurrence of interstitial bleeding in the breast, maternal and fetal, and in the liver, kidney and brain in eclampsia", which led him to postulate that there were "Innere Secretion von Ovarium und Placenta", when these secretions were unheard of. And, he cited instances of bleeding from the nipple and nose as examples of vicarious menstruation. He arrived at 21 "These" or conclusions that they must be in existence purely as a result of clinical observations which could not be explained any other way. No. X of Halban's "XXI These" stated: "The placental and ovarian substance have the same general ability to produce hyperemia and hemorrhage."

He arrived at two more salient deductions, now accepted as facts, which indicated these hormones also as present in men. The first is that "gynecomastia occurs in men and frequently in association with atrophy of the testes" and "These XXI: Milk secretion in men may occur if in gynecomastia the testes undergo atrophy." The other conclusion was: "These hormones are present in men and in some way connected with osteoporosis." It was not until 1923 that estrogen was extracted from the ovary and 1927 before it was isolated from the placenta. Progesterone was obtained from the corpus luteum in 1930 and from the placenta in 1936. In the comment

on this article (After Office Hours: *Obstetrics and Gynecology*, Nov. 1955) the reviewer remarked: "Each time I have read this paper since 1930, when I discovered it, I have been more and more impressed. The substitution of two little words, estrogen and progesterone, would make it better than most current papers on the subject."

The production of natural and synthetic estrogens and androgens in quantities large enough for clinical and experimental purposes led to their widespread use and inevitably to their abuse. Unfortunately, the tawdry appellation of "sex hormones" aptly but ineptly applied to them sharply restricted their use to women and exploited only the clearly apparent differences between the sexes. One of the first targets was hemophilia and it did not take long to discover that hormones alone were not the culprits. With the passing of time, the concept of androgyny—femaleness in the male and maleness in the female—dispelled the notion that gender dictates which hormone should be used. And it is not yet fully realized that it is unlikely that the synthetic and conjugated estrogens of today and the methods of administering them can do little more than imitate after a fashion the function and interaction of the natural human hormones.

The theory that spontaneous hemorrhage arises from fluctuations in the circulating hormones rests on the fact that the normal physiological processes of menstruation also are the result of these variations. Therefore the bleeding period itself is a form of spontaneous bleeding. I believe this same mechanism may come into operation as a kind of vicarious menstruation in locations not sanctioned by nature, yet not produce a general hemorrhagic state. Coagulation of the blood persists during the bleeding phase of menstruation and is in no way altered during episodes of spontaneous bleeding. Proof that the clotting mechanism is not affected and that hemorrhage will occur only from a site especially prepared for that purpose is furnished by the fact that these patients can be operated on and the incisions will have no more tendency to bleed than those who do not have the disease. Hysterectomy can be done in the face of so-called functional uterine bleeding, gastrectomy is possible for bleeding peptic ulcer and major vessels can be ligated for nosebleeding or intracranial aneurysms without fear of hemorrhage from the wounds required to reach these structures. Moreover, just as menstrual bleeding is episodic, even though the episodes are cyclic, so also is spontaneous hemorrhage. No patient bleeds from any lesion continuously and the majority of attacks are induced

by extrinsic as well as intrinsic influences beyond his control. Even removal of the lesion does not prevent the tendency to bleed for shutting off the bleeding point does not cure this disease. Only too often another bleeding area is created at a different location not necessarily in the same organ.

The theory is that epistaxis, cerebral hemorrhage, coronary occlusion, gastro-intestinal bleeding, intra-ocular hemorrhage and many similar conditions may be a single disease with a multitude of manifestations depending upon where it strikes. An extensive clinical experience, which was reported in the December, 1955 issue of the *Western Journal of Surgery, Obstetrics and Gynecology*, has led me to the conclusion that spontaneous hemorrhage is a clinical entity in itself and that epistaxis is only the commonest form of this disease. In this article, an elaboration of this theory, including a tentative description of the pathology, is presented. It contains also the only published illustration of what may be the mechanism of epistaxis. If this mechanism or one closely related and described as a vascularization process should become active in the brain, the veins or the walls of the large arteries, it could easily explain the vast number of vascular catastrophes with which almost every branch of medical practice must contend.

The success attending the application of this theory

has been demonstrated by the experience with epistaxis in the Petersburg General Hospital since the introduction of intravenous estrogens in 1952. From January 1, 1952, to November 30, 1955, 94 patients who were hemorrhaging severely enough to warrant hospitalization were admitted. Not a single one was packed or cauterized, nor were any vessels ligated. Many more were treated in the out patient clinic just as successfully. This work is continuing and I have no illusions the theory, as it is now formulated, is wholly tenable or infallible, and certainly it is not complete. Until clinically useful methods for measuring the circulating hormones have been invented or the presence of a vascular toxin can be accurately detected, there is little likelihood that this theory can be supported by any other means except clinical experience and observation.

I do not know if priority of publication is as important in medical journalism as in other fields. If it is important, and this theory of spontaneous bleeding is eventually confirmed, then as far as I can determine, the *Virginia Medical Monthly* was the first to publish it.

PHILIP JACOBSON, M.D.

*18 Liberty Street
Petersburg, Virginia*

Doctors' Own Health-Check Program.

Doctors who don't have time for physical check-ups might take a glance at what their colleagues in Williamsport, Pa. are doing. The physicians there make the time, and they're glad they do.

On one of two well-publicized days every April, the Williamsport M.D.s receive check-ups, and, as a result, they stay healthy. The story of the program they've established appears in the November issue of *Medical Economics*, national business magazine for doctors. It's entitled "These 80 M.D.s Get Annual Check-ups."

The program is now in its fifth year. Here's how it works, according to *Medical Economics*:

The doctors are asked to report in advance for a complete blood count, urinalysis, serology, sedimentation rate check, chest x-ray and electrocardiogram." And there are several additional procedures.

On examination days, the doctors take nine more

tests, and they're checked by their own colleagues. The tests require about two hours, the magazine reports, and, as soon as the doctors have completed them, "the results are studied by an examining board. Then—sometimes even before the participant has left the building—the board drafts a letter to him listing all positive findings and recommendations. In any case, each physician gets the results within two weeks."

The cost of the program is slight. Some examiners bring along their own aides and pay them themselves, but the rest of the expense is borne by the hospital. That expense averages \$23.75 for each man examined.

So successful has been the voluntary program, emphasizes *Medical Economics*, that it now boasts 80 per cent participation. And, say its backers, it's saved several doctors from serious illness.

JOSEPH E. BARRETT, M.D.
*Commissioner, Department Mental Hygiene
and Hospitals*

Who Are the Patients in Our Mental Hospitals?

NOTE: Much interest has been shown in the number and types of patients in the mental hospitals. A series of statistical articles, prepared by the Department's Statistician, to be published in the next several months, will bring out the different aspects of the hospital population. Charts, which will give a graphic picture of the various characteristics of these patients, will also be included. It is hoped that this will be valuable information to the medical profession in Virginia.

JOSEPH E. BARRETT, M.D.
Commissioner

The mental hospital resident population has been steadily on the increase. In Virginia, since 1952, the increase has been 1,178 patients (407, 1952 to 1953; 324, 1953 to 1954; and 447, 1954 to 1955). The increase of admissions for the same period was 529 (184 for year ending June 30, 1953, 73 for 1954 and 272 for 1955). This certainly brings up the question of "What causes the increase in resident population?". There are probably several answers and some of the questions may never be answered satisfactorily. It may be that intensive, time consuming research might give a deeper insight into the problem of the increasing population.

Analyses of statistical tabulations on the hospital records tell us the characteristics as to age, diagnosis, and length of stay. These give three phases of the problem confronting administration in providing facilities, personnel, and other necessities for care and treatment of these patients.

The length of stay of patients is one of the characteristics of primary importance.

On June 30, 1955, there were 11,303 patients resident in the four state hospitals in Virginia; 2,458 or 21.8% had been on record 20 years or longer and 2,331 or 20.6%, 10 through 19 years, making 42.4% on record 10 years or longer. (Chart No. I) This consists largely of a build-up of patients who have not responded to or received proper or efficient early treatment. It may be said that some of the 33.0% (3,730 patients) who have been on record from 2 through 9 years will be contributing largely to the future build-up of long term residents. Of the remaining 24.6%, 8.2% (929 patients) were

on record from 1 to 2 years; 5.5% (622 patients) 6 months through 11 months; 4.1% (462 patients) 3 through 5 months; 3.8% (430 patients) 1 through 2 months and 3.0% (340 patients) less than one month.

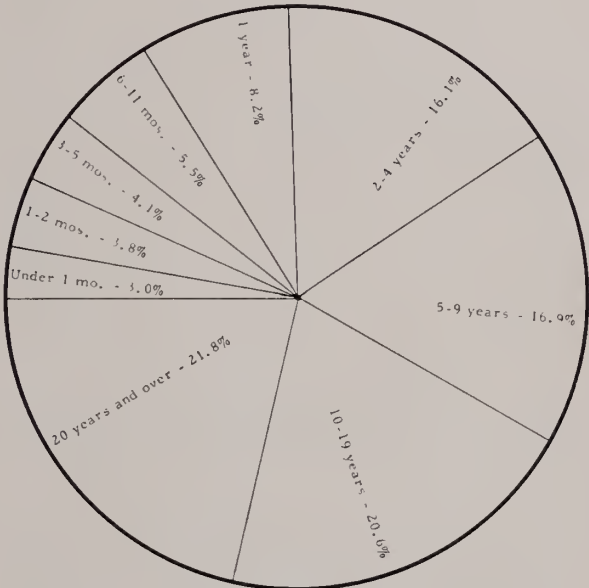


CHART NO. 1—Percentage distribution of continuous length on record of patients resident in Virginia's four mental hospitals as of June 30, 1955.

The best treatment results are obtainable within the first year of hospitalization. Those who remain longer than 1 year have less chance of leaving the hospital.

The long-term build-up of the 42.4% who have been on record 10 years or longer is a tax on hospital facilities and personnel and on the economy of society. Specific characteristics of this group will be developed in later articles.

Another characteristic of patients in residence is the ages that have to be considered. The large number of patients who have been resident over a long period of time tend to increase the old age groups materially. On June 30, 1955, 26.1% (2,942 patients) were 65 years of age and over. (Chart No. II) Of this group, 16% (1,688 patients) are from 65 to 74 years of age; 8.9% (1,013 patients) are from 75-84 years of age; and 2.2% (241 patients) are 85 years of age and over. Many of these have been

Contributed by EDNA M. LANTZ, Statistician, Department Mental Hygiene and Hospitals.

resident for 10 years and over, especially the 65-74 years age group; 51.9% of these had been on record 10 years and over. Of the other age groups, 17.7% (2,000 patients) were in the 55-64 age group; 56.8% of these on record 10 years and over. In the 45-54 age group there were 21.2% (2,399 patients); 52.9% of these on record 10 years and over. In the 35-44 age group there were 18.6% (2,105 patients); 38.7%



CHART NO. II—Percentage distribution of age groups of patients in residence in Virginia's four mental hospitals as of June 30, 1955.

of these on record 10 years and over. This total of 57.7% (6,504 patients) is a potential build-up of the older age groups unless a concentrated therapeutic program is able to effect improvement in many of these patients so that they may be released. The remaining 16.4% were distributed 11.5% (1,299 patients) in the 25-34 age group; 4.1% (457 patients) in the 15-24 age group and 0.8% (100 patients) under 15 years of age.

Another characteristic of patients resident in the hospitals, as shown by statistical tabulation, is the diagnostic group.

The largest single diagnostic group is schizophrenia with 35.9% or 4,062 of the 11,303 patients in hospital on June 30, 1955, with more than half of the group being on record 10 years and over. The second largest is the manic-depressive with 15.1% or 1,704 patients, with more than 60% on record 10 years and over. (Chart No. III) Later articles will show how these two groups constitute the majority of the long term patients and the aging patients. This appears to be the area in which

research should be concentrated as to causes and effective therapeutic procedures. Education for early recognition of symptoms of these disorders, with treatment in the early stages, might also prevent long hospitalization of this group. The old age diagnosis of cerebral arteriosclerosis and senility constituted 13.1% or 1,477 patients. Only about 8% of these had been on record more than 10 years;

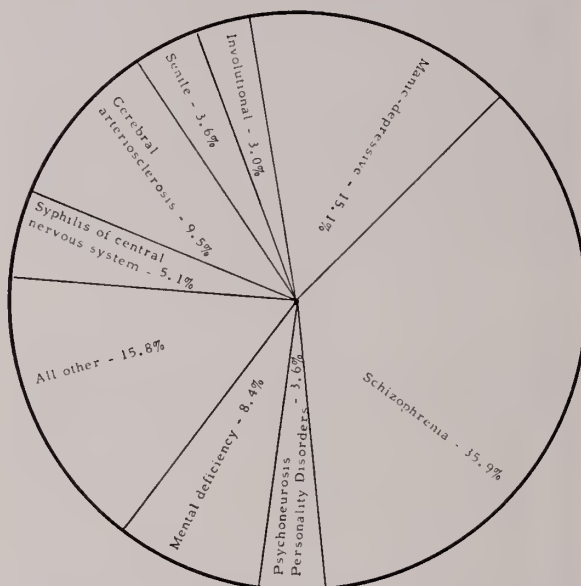


CHART NO. III—Percentage distribution of diagnostic groups in residence in Virginia's four mental hospitals as of June 30, 1955.

about 75% had been in less than 5 years. This group is an admission problem rather than a build-up problem for long terms of elderly patients.

There is a group of 8.4% or about 1,000 mentally deficient who should not be in the mental hospitals. Most of these are concentrated in one hospital in which a problem of overcrowding has been created, as well as the difficulty of planning for treatment and care somewhat different from that of the mentally ill. These also cause some of the build-up of long term patients.

The remaining 27% are other forms of chronic brain syndromes (epilepsy, syphilis of central nervous system, metabolic disorders, etc.), and mental deficiency with a psychosis. Psychoneuroses and personality disorders are small portions of the population. Some of the other chronic brain syndromes are long term patients, however, not as large a contributing factor as the functional psychotic group. More details of the diagnoses of patients will be taken up in succeeding articles.

MACK I SHANHOLTZ, M.D.
State Health Commissioner of Virginia

Diphtheria Immunizations

The schedule of immunization against diphtheria that has been adopted by the Virginia Pediatric Society and accepted by the State Health Department is to give the first injection at the age of three months, the second at the age of four months and the third at the age of five months. A booster is given at the age of eighteen months and again when the child is 3-5 years of age. When diphtheria toxoid is given, pertussis vaccine and tetanus toxoid are injected with it in a combined form so that immunization against the three diseases is carried out at the same time.

Present diphtheria toxoids confer a high degree of immunity, but protection is not perfect and parents should not be led to expect perfect protection. To maintain immunity, regular booster injections must be given. The level of circulating antibody in the child's blood serum falls below the protective level in 18 to 24 months following the initial series of three DPT injections. Most levels of circulating antibody following the first booster injection are appreciably higher than those previously established. Following the first booster dose, the levels fall more slowly than after the original series of three doses. It is of great importance to get the child back for the first booster following the initial series.

While the usual interval suggested before the first booster injection is one year, it may be given as early as 6 months following the initial series with excellent response. The injection should not be delayed more than 18 months after the first series as the child is no longer adequately protected after this interval. However, he is capable of responding to a booster injection for many years. There is no need to repeat the primary series no matter how long before it was given. If he misses the first booster at the usual time, he should certainly be given one at any time up to the age of ten years. Between 10 and 15 years he will need only the DT booster injection unless there is some indication for protection against pertussis. After 15 years of age the booster injection should be of the new diphtheria-tetanus toxoids for adults. Following the booster given at about 10 years of age and again at about

15 years of age, it seems sufficient to stimulate diphtheria immunity only about every 10 years.

There is not enough diphtheria in most communities now to act as a natural stimulant of diphtheria in older persons and for this reason attention should be paid to maintaining immunity in this group. It has been shown that small doses of standard diphtheria toxoid preparations can be safely used in early teen age. The dosage for children 12 to 15 years old is 0.1 cc of the standard DT toxoid mixture.

For those above 15 years of age it has been found necessary to give smaller doses of diphtheria toxoid than is contained in 0.1 cc of the standard toxoids if reactions are to be avoided. Young adults have reacted more to the impurities in the toxoid, but purification of toxoids has reduced the incidence of severe reactions. Older adults react to the toxoid itself and it is necessary to give a dose of only 0.05 cc of standard diphtheria toxoid. This dose has been found adequate to induce immunity in adults with no previous immunity. A combined diphtheria-tetanus mixture has been prepared containing this small amount of diphtheria, together with a standard quantity of tetanus toxoid, in 0.5 cc. This has been given extensive trials and approved for usage without sensitivity testing by the Commission on Immunization of the Armed Forces Epidemiological Board.

Immunization of allergic children with diphtheria, pertussis and tetanus antigens is safe, according to reports from the University of Texas and the Children's Medical Center, Dallas. The usual methods of injection may be used during the first few years of life, but highly sensitive older children should receive small, frequent intramuscular or intradermal injections.

A positive Shick test does not always indicate that the individual lacks immunity to diphtheria. Experience has also shown that a negative reaction does not necessarily indicate that the individual has developed sufficient immunity against diphtheria to protect him from the disease. The test still has some value in the hands of physicians skilled in its use but, generally speaking, it is difficult to administer on a large scale and difficult to interpret. It is rarely

used now. A history of active immunization with booster doses given at scheduled intervals is of greater value. The finding and the treatment of diphtheria carriers with antibiotics are other important means of protecting a community against the spread of the disease. Contacts of clinical cases of diphtheria should have throat and nasopharyngeal cultures taken for examination.

Diphtheria has not ceased to be a medical and public health problem in this country. Immunization programs have not kept pace with the increase in population and have seldom been extended to older children and adults. Physicians must be constantly on the alert to reduce the number of cases and deaths. Diphtheria cannot be treated with antibiotics alone. While antibiotics will prevent further growth of the organisms, they will not destroy the toxin that has already been produced by the bacteria.

All proved cases of diphtheria should be treated with adequate amounts of antitoxin.

MONTHLY REPORT OF THE BUREAU OF
COMMUNICABLE DISEASES

	Dec. 1955	Dec. 1954	Jan.- Dec. 1955	Jan.- Dec. 1954
Brucellosis -----	0	2	30	46
Diphtheria -----	7	3	45	36
Infectious Hepatitis -----	37	151	1056	3550
Measles -----	572	237	4573	23848
Meningococcal Infections ----	12	18	99	115
Poliomyelitis -----	11	17	338	613
Rocky Mt. Spotted Fever ----	2	0	48	41
Streptococcal Infections -----	337	496	6516	4766
Tularemia -----	9	14	24	46
Typhoid Fever -----	2	12	46	70
Rabies (In animals) -----	27	37	374	377

New Synthetic Hormone

A preliminary report on the use of a new synthetic hormone to make up for hormone gland activity lost through disease or surgery has been made by two Ohio physicians.

The hormone, fludrocortisone acetate, appears to be 15 to 20 times as effective as hydrocortisone, another synthetic now used for such conditions. The greatest usefulness of fludrocortisone probably will be in adrenal insufficiency (a disorder in which the adrenal glands fail to function properly) and in cases of surgical removal of the glands in cancer or other serious illnesses.

The physicians, who made their report in the December 24 Journal of the American Medical Association, gave the hormone to patients with a variety of disorders, including a serious nervous condition characterized by loss of appetite, an eye disease, rheumatoid arthritis, and adrenal cortical

hypofunction.

The hormone is similar to cortisone and hydrocortisone in its ability to inhibit the pituitary stimulation of the adrenal gland: produce loss of nitrogen, calcium, and phosphorous; inhibit inflammation, and produce a sense of well being. It also resembles desoxycorticosterone, another synthetic hormone, in its effect on salt, water, and potassium balance. However, its use may be limited in conditions such as rheumatoid arthritis in which it causes too much salt and water retention.

The report was made by Drs. George J. Hamwi and Robert F. Goldberg, from the division of endocrinology and metabolism, department of medicine, Ohio State University, Columbus, Ohio.

The study was supported by grants from the Comly-Coleman Fund, the Institute of Nutrition of Ohio State University, and Merck & Company, Inc.

The Medical Society of Virginia

Delegates to the American Medical Association

The Interim Session of the House of Delegates of the American Medical Association was held November 29th to December 1st, 1955, in Boston with headquarters at the Statler Hotel.

Special emphasis was given to Public Relations. Most of the day preceding the meeting of the delegates was devoted to this subject with a program including addresses by Representative Curtis of Wisconsin, Senator Bennett of Utah and L. E. Reed, president of the Foundation for Economic Education.

In his address to the House, President Hess stated that the greatest fault of the medical profession is complacency. He urged that much greater effort be made to inform the public of the accomplishments of physicians in promoting the public health and of the objectives of organized medicine.

On the national level, interest centered around H.R. 7225, a bill to amend the Social Security Act. This bill proposes that individuals, fifty or more of age, who are adjudged totally and permanently disabled may receive cash benefits from the Government. Obviously the responsibility for determining disability would fall upon the physician with resulting political and administrative pressure and ultimate complete government control of the medical care and rehabilitation of a large segment of the American people. The bill, which is strongly opposed by the A.M.A., as an example of socialized medicine by the back door, has passed the House of Representatives by a large majority having been pushed through without public hearings.

It will shortly come before the Senate Finance Committee of which our own Senator Byrd is Chairman. In opposing this bill as an encroachment upon the American system of medical practice, the A.M.A. urges the creation of a well qualified commission to make a thorough study of social security and that the findings of this commission serve as a basis for non-political improvements. To this end the A.M.A. pledges full cooperation in providing information on the medical aspects of disability, rehabilitation and care of the disabled.

As misunderstanding seems to exist regarding the position of the A.M.A. on compulsory social security for physicians, the House recommended that state societies poll their membership on this question and

transmit their findings to the Trustees of the A.M.A. as soon as possible.

A continuing committee on medical practice consisting of five members, three of whom shall be general practitioners, was authorized. Its function is to conduct a study of the relative value of diagnostic, medical and surgical services and to report its conclusions to the House with recommendations. It is also to initiate measures to stimulate interest in general practice both in medical schools and hospitals, and to prevent discrimination against general practitioners as staff members.

The report of the committee to recommend guides for grievance or mediation committees was approved. This report will be published shortly and will be available to local societies. It includes the recommendation that a uniform policy be followed in which such committees are called "Grievance Committees" rather than by some other name.

Proposed changes on the "Principles of Medical Ethics" were discussed but no final action taken, pending review by the Council on Constitution and By-laws and the Judicial Council prior to the annual session in June. It was recommended that these changes be given wide publicity in the hope that individual members may become familiar with them.

Many other actions on a variety of subjects were taken by the House. It was recommended that the Board of Trustees give consideration to increasing the dues of all members, the increase going to the American Medical Education Foundation. Adopted a resolution on the practice of pathology that declares opposition to "the Division of any branch of medical practice into so-called technical and professional services". Approved the appointment of an A.M.A. committee to study the prevention of highway accidents. Commended the Women's Auxiliary for its financial contribution to the support of medical education and the Sears Roebuck Foundation for its financial assistance in establishing medical practice units. Reaffirmed its approval of medical society sponsored nonprofit prepaid medical care plans as a means for financing medical care. In all, 37 resolutions were considered and disposed of in addition to numerous committee reports.

It was announced that the Board of Trustees has appropriated \$100,000 to the American Medical Education Foundation; the California Medical Associa-

tion presented a check for \$25,000, and the Utah State Society a check for \$11,000 to that cause.

As is customary at this session, a special committee of the Board of Trustees selected Dr. E. Roger Samuel of Mt. Carmel, Pa., as the general practitioner of the year. Dr. Samuel is a former member of the House. Also a special citation was presented to Dr. Torald Sollmann of Cleveland, a charter mem-

ber of the A.M.A. Council on Pharmacy and Chemistry, member of that Council for more than 50 years and the Chairman since 1936. The House approved the selection of Minneapolis for the 1958 Clinical Meeting and Chicago for the 1960 Annual Meeting.

W. ALLEN BARKER

J. MORRISON HUTCHESON

Delegates

Book Announcements . . .

Polio Pioneers. The Story of the Fight Against Polio. By DOROTHY and PHILIP STERLING. With photographs by Myron Ehrenberg and The National Foundation for Infantile Paralysis. Doubleday & Company, Inc., Garden City, New York. 1955. 128 pages. Cloth. Price \$2.75.

Present-Day Psychology. An Original Survey of Departments, Branches, Methods, and Phases, Including Clinical and Dynamic Psychology. Edited by A. A. ROBACK, With the Collaboration of Forty Experts in the Various Fields. Philosophical Library. New York. 1955. xiv-995. Cloth. Price \$12.00.

Hand Surgery. Medical Department, United States Army. Surgery in World War II. Edited by STERLING BUNNELL, M.D. Office of the Surgeon General, Department of the Army, Washington, D. C., 1955. ix-447 pages. Illustrated. For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C. Price \$3.75 (Buckram).

Asclepiades. His Life and Writings. A Translation of Cocchi's Life of Asclepiades and Gumpert's Fragments of Asclepiades. By ROBERT MONTRAVILLE GREEN, M.D., Emeritus Professor of Anatomy, Harvard Medical School, Boston, Mass. Elizabeth Licht, Publisher, New Haven, Conn. 1955. ix-167 pages. Cloth. Price \$6.00.

Classes of Biology. By AUGUST PI SUNER. Authorized English Translation by Charles M. Stern. Philosophical Library, New York. 1955. x-337 pages. Cloth. Price \$7.50.

Environmental Hygiene. Volume II. Medical Department, United States Army. Preventive Medicine in World War II. Editor in Chief, Colonel JOHN BOYD COATES, JR., M.D.; Editor for Preventive Medicine, EBBE CURTIS HOFF, Ph.D., M.D. Office of the Surgeon General, Department of the Army, Washington, D. C., 1955. vii-404 pages. For sale by the superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C. Price \$3.50.

Pathology Seminars. By Lauren V. Ackerman, M.D., F.C.A.P.; Arthur C. Allen, M.D.; Colonel J. E. Ash, M.D., F.C.A.P.; Arthur Purdy Stout, M.D.; Rupert A. Willis, M.D., F.R.C.P. Edited by Robert S. Haukohl, M.S., M.D., F.C.A.P., Assistant Pro-

fessor of Pathology, Marquette University School of Medicine, and W. A. D. Anderson, M.A., M.D., F.A.C.P., F.C.A.P., Professor of Pathology and Chairman of the Department of Pathology, University of Miami School of Medicine. St. Louis, The C. V. Mosby Company. 1955. 195 pages. Illustrated. Cloth. Price \$10.00.

Ageing—General Aspects. Ciba Foundation Colloquia on Ageing. Volume I. Editors for the Ciba Foundation—G. E. W. Wolstenholme, O.B.E., M.A., B.Ch. and Margaret P. Cameron, M.A., A.B.L.S. Assisted by Joan Etherington. Little, Brown and Company, Boston. 1955. xii-255 pages. With 38 Illustrations. Price \$6.75.

The book presents a series of seventeen papers dealing with the general problem of aging plus the general discussion following each paper. Each paper deals with a different subject, consequently, a large variety of topics are briefly covered.

J. C. FORBES

The Human Adrenal Cortex. Ciba Foundation Colloquia on Endocrinology. Volume VIII. Editors for the Ciba Foundation—G. E. W. Wolstenholme, O.B.E., M.A., M.B., B.Ch. and Margaret P. Cameron, M.A., A.B.L.S. Assisted by Joan Etherington. Little, Brown and Company, Boston. 1955. xv-665 pages. With 227 Illustrations. Price \$10.00.

The book consists of two parts. Part I contains the papers presented April 21-23, 1954 at the Colloquium on "The Human Adrenal Cortex" plus the ensuing discussions. This part is concerned mainly with histological and biochemical aspects and corticomedullary relationship.

Part II deals with the physiological and pathological aspects and hypothalamic and pituitary relationships. It also includes the papers presented at the Colloquium held on June 22-25, 1954 plus the ensuing discussions.

J. C. FORBES

Current Currents

PRESIDENT EISENHOWER'S third message of the Union contained many recommendations of interest to the medical profession. The stand of the American Medical Association on many of the items covered in the message is outlined below for your information.

Dependent Medical Care: AMA believes that dependent medical care, if authorized by Congress, should primarily utilize civilian facilities and civilian physicians, with care to be furnished in military hospitals or by physicians in uniform only in overseas areas or where civilian resources are inadequate.

Career Incentives: AMA vigorously supports a career incentive program adequate to attract a sufficient number of physicians and dentists to voluntary service.

Medical Defense: AMA urges greater emphasis on the medical aspects of civil defense, with adequate appropriation to permit a realistic preparation for medical emergency produced by atomic, chemical or biological attack.

Expansion of OASI: AMA urges a thorough, objective and impartial study of the economic, social and political impact of Social Security, both medical and otherwise, as the sole basis for objective non-political improvements in the Act.

Coverage of Physicians: AMA opposes the compulsory coverage of physicians under OASI, but does not oppose their inclusion on a voluntary basis similar to that permitted ministers.

Reinsurance: AMA supports voluntary health insurance plans and is convinced that their rapid growth and expansion is proof of their ability to cover all risks which can be covered under an insurance principle. AMA opposes federal reinsurance as unnecessary, unworkable except as a subsidy, and dangerous to the orderly development of sound voluntary health insurance programs.

Veterans: AMA urges the provision of the finest medical care possible to Veterans with service connected illness or disability, but opposes federal medical care for illness or disability unrelated to military service.

NEW BOOKLETS FOR MEDICAL SOCIETIES: Two booklets of vital interest to medical societies will be published by the American Medical Association early in February. The first—"Guides for Medical Society Grievance Committees"—reviews the findings and recommendations of the Special Committee on Grievance Committee ap-

pointed by the Board of Trustees. The second publication—"Report of the Survey on County Medical Society Activities"—will include data on meetings, budgets, scientific programs, committees, public relations, etc.

THE AIR FORCE is preparing a medical student training program in approved medical schools. Starting with the 1956-57 school year, junior and senior medical students will be eligible for appointments as second lieutenants in the Air Force Reserve. During the two years they will receive the pay and allowances of that grade (between \$325 and \$350 a month) which may be used to pay tuition and other school costs.

Upon graduation, the students will be eligible for appointments as first lieutenants in the Air Force medical corps. For each year of active duty pay as a second lieutenant while in medical school, a man will obligate himself for an additional year of service beyond the regular draft. Accordingly, the doctor with an obligation under the draft who received active duty pay in both junior and senior years will be obligated for four years. Both the Army and Navy have similar programs but they are limited to seniors. The latest development is expected to lessen congressional activity on the military medical scholarships bill which encountered some opposition in the last session.

Air Force Surgeon General Dan C. Ogle said the program would provide a "valuable educational subsidy" to junior and senior medical students. Closing date for submitting applications to the Air Force is next March 1.

WOULD YOU ADVISE YOUR CHILDREN TO BECOME PHYSICIANS? According to a nationwide survey conducted by "Medicine in the News" almost 60 per cent of physicians would advise their sons to become physicians. However, only about 15 per cent wish their daughters to become physicians.

UNEVEN RISE IN MEDICAL CARE COSTS: A survey on health insurance for the years 1948-54 by the Social Security Administration reveals that the various items making up the medical bill of the nation have advanced at uneven rates. The study notes that costs for hospital services during that period had risen 79 per cent, while spending for physicians' services had advanced 33 per cent. The survey also found that Blue Cross is the major supplier of hospital coverage, furnishing 49 per cent of all insurance benefits paid. Commercial group insurance leads in provision of coverage by physician's service at 37 per cent of the total benefits, followed by Blue Shield plans at 34 per cent.

AMA PRESIDENT ELMER HESS advises that complacency should be regarded as the medical profession's greatest enemy.

Woman's Auxiliary . . .

President ----- Mrs. M. W. Glover, Arlington
President-Elect ----- Mrs. Lee S. Liggan, Irvington
Vice President ----- Mrs. Charles A. Easley, Danville
 Mrs. C. C. Hatfield, Saltville
 Mrs. John St. George, Portsmouth
Recording Secretary ----- Mrs. J. R. Grinels, Richmond
Corresponding Secretary Mrs. Robert Detwiler, Arlington
Treasurer ----- Mrs. William Grizzard, Petersburg
Publication Chairman
 Mrs. William J. Weaver, Alexandria

Alexandria

The Auxiliary to the Medical Society of Alexandria had one of their most active months in December. They sponsored one night performances of the Little Theater Group of Alexandria, presenting, "Oh' Men Oh' Women". Through the efforts of Mrs. Robert Anderson and her committee, the evening was a huge success. Student nurses from Alexandria hospital ushered and served refreshments during intermissions. The profit of five hundred dollars made from the evening will go into our fund for Alexandria hospital and our nursing scholarship fund.

For Christmas, the auxiliary "adopted" three boys in foster homes and provided clothes and toys for their enjoyment. Mrs. Robert Bregman, Mrs. Thomas McGough, and Mrs. Lewis Mangus collected the money and purchased the gifts for this project.

At our Christmas luncheon meeting, the auxiliary wrapped over a hundred gifts, purchased by Mrs. F. Preston Titus, Mrs. James Gilbert, and Mrs. John Zearfoss, to be given to the clinic children for their party.

After all of this activity, we all relaxed at a gay New Year's Eve party, given by the auxiliary for all members and their husbands, at the home of Dr. and Mrs. F. Preston Titus. A fitting end to a busy year!

FRAN MILLS (MRS. JAMES)

Richmond

This Auxiliary ended the year of 1955 with two very successful meetings. On November 22, Dr. James King spoke of the public relations of the medical profession to the various woman's organizations throughout the city, who were our guests at the Public Relations Luncheon. Mrs. Richard Baylor and Mrs. Thomas Wheelden were co-chairman with Mrs. Reuben Sims serving as luncheon chairman and Mrs. Hubert Dugan arranging flowers.

On December 13, our Christmas Tea was held in

the home of Mrs. Raymond C. Hooker. The members brought toys wrapped as gifts, which were distributed to children in foster homes under the care of city welfare. Mrs. William Barr and Mrs. William Cox were co-chairman of the function, which was beautifully decorated by Mrs. William Young. For our Christmas program the Junior Choir of River Road Baptist Church rendered Christmas Carols.

MARGARET MEADOR (MRS. CARL W.)
Publicity chairman.

Fairfax

The Auxiliary to the Fairfax Society met on December 6th at the Court House County Club, at which time this years officers were installed by Mrs. M. W. Glover, our state president. Mrs. T. B. McCord will serve as president, Mrs. Emmanuel Newman as vice-president, Mrs. Carl Parker as executive secretary, Mrs. E. S. Waring, as corresponding secretary and Mrs. Claude Cooper as treasurer.

Our special guest at this luncheon meeting was Mrs. Lee Liggan, state organizational chairman. The main business of this meeting was to approve our new constitution, which was drawn up by Mrs. Robert Rounds and her committee.

The chairmen of standing committees were announced as follows: Program: Mrs. Acors A. Thompson; Publicity and Public Relations; Mrs. W. C. Bernhart; Ways and Means: Mrs. Robert Rounds; Membership and Remembrance: Mrs. L. A. Jacklin; "Today's Health": Mrs. E. G. Morales; Hospitality: Mrs. Thomas Haggerty; Parliamentary: Mrs. Peter Soyster.

Although our auxiliary was only organized in November, we have thirty four charter members. It is hoped that the wives of all the physicians of Fairfax County will avail themselves of this opportunity to get acquainted. Associate members will be welcomed and should contact Mrs. L. A. Jacklin at JA8-8585.

Congratulations are in order for Dr. and Mrs. Robert Hunt, on the birth of a son, Robert Lawrence, on November 6th.

MARGARET L. BERNHART
Publicity Chairman

Northern Neck

The Fall meeting of the Woman's Auxiliary to the

Northern Neck Medical Association was held at the Flamingo Hotel in Colonial Beach on October 27, 1955, at which time Mrs. J. Robert Massie, Jr. of Richmond, the past-president of the Junior Board of Crippled Children's Hospital, spoke to us on the work of the hospital and the Crippled Children's Hospital Fund.

Mrs. E. T. Ames of Montross, was elected President-elect of the auxiliary to fill a vacancy caused by the resignation of Mrs. C. T. Peirce of Nuttsville.

We welcomed one new member, Mrs. Horace E. Kerr of Colonial Beach.

The Northern Neck Auxiliary is quite proud of

its charter member, Mrs. Lee S. Liggan of Irvington, who has been elected President-elect of the Woman's Auxiliary to The Medical Society of Virginia.

RUTH L. GRAVATT

(MRS. A. B. GRAVATT, JR.)

Mrs. Waverly R. Payne

In a recent issue of the Daily Press-Times Herald of Newport News, "Peninsula Portraits" presented Mrs. Payne as "In her modest, quiet, unassuming way Mrs. Waverly Payne goes about doing, perhaps as much good as any individual in Newport News". An interesting account was given of her life, her family and her hobbies.

Unusual New Exhibit

Actual human fetuses, from four-and-one-half weeks to nine months old, now may be seen by the public in remarkable detail through a new technique of embedding them in clear plastic blocks.

Fetuses have long been preserved in formaldehyde, and plastic models of fetuses have been made, but what is probably the first exhibit of actual fetuses in plastic has just been completed by the American Medical Association.

The exhibit, "Life Begins," was shown by the A.M.A.'s Bureau of Exhibits for the first time at a national meeting of the American Public Health Association Nov. 14-18 in Kansas City, Mo.

It is available for public exhibit at various other meetings, health fairs, state and county fairs, and home and farm shows throughout the country.

By using clear plastic to preserve the fetuses, the problem of spilled liquid is avoided, and the exhibit can be moved more easily, according to George B. Larson, assistant director of the bureau, who first thought of the idea 20 years ago and has spent the last three years preparing the new show.

The display includes latex models of the female reproductive organs and an electrical model showing the activity of the egg before, during, and after conception. Another model demonstrates delivery.

Professional Liability Insurance

IT WOULD appear safe to say that no subject, in recent years, has aroused the interest, the hope, and even the fear of the medical profession as has professional liability insurance.

The practice of medicine is today fraught with perils unknown to the physician of yesteryear. The moral fibers of today's generation have been weakened to such an extent that the physician must be certain he is adequately protected against any eventuality.

To secure and maintain this protection is not easy—as many of our members will attest. Professional liability rates have gone up and up, and the end is not yet in sight. Some carriers have insisted that professional liability insurance programs be revised if liability coverage is to be continued.

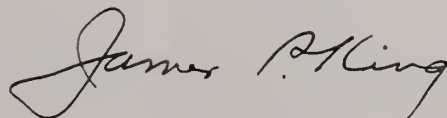
The membership has applied for relief, and The Medical Society of Virginia, through its Special Insurance Committee, has conducted a thorough study of the subject. The Committee, during the recent annual meeting, recommended to the House of Delegates a program which promises to relieve our liability problems for many years to come. The program was approved by the House.

It is quite possible that you have already received an application and other information on the program. Let us assure you that the program is not mandatory. Rather, it is voluntary in every sense of the word. I would remind you, however, that there is "safety in numbers" and that through greater participation will be derived greater benefits.

Your Society believes that the plan, to be written by Saint Paul-Mercury Indemnity Company, St. Paul, Minnesota, is sound and will accomplish the following objectives:

1. The most comprehensive coverage available.
2. A vigorous defense when needed.
3. The prevention of further large increases in professional liability rates and a possible reduction in cost based upon experience.
4. The opportunity to secure professional liability coverage without completely revising existing insurance programs.

Similar programs are now in effect in other states, and are proving quite successful. I urge your support and participation.



President

Pro Bono Publico?

DURING the early years of this century Dr. William H. Taylor gave an inspirational lecture to the student body of The Medical College of Virginia. He took as his theme the statement that there is "room for both heart and brain in every man". He cited as an example the work of a physician who died in Richmond in 1869. A monument was erected in his memory. It bore the inscription

"Dr. Lawrence Roane Waring, who devoted his life to the relief of the suffering poor. This monument is erected by grateful and loving friends."

Dr. Taylor also discussed medical economics in his address and elsewhere remarked that "indiscriminate charity is no doubt censurable". Charity in those days was administered directly and locally. This situation fostered discrimination. Charity has gone through an evolutionary change during the past fifty years. This change has been so great that even the name is questioned. It is said to carry a stigma. Charity in the past was administered locally by individuals and the church. It was next organized and administered by social agencies. During the past twenty years the welfare activities of the government have relieved the voluntary social agencies of their major problem. In addition to the governmental relief program, there has been developed a compulsory "insurance" plan. This is the social security program, which features chiefly an old age pension, and a family income benefit when the survivors include children under age eighteen. Benefits are payable under this plan regardless of need. Few persons today wish to turn the clock back on these developments. The pendulum has momentum, however, and one might well question whether it will swing too far.

The proposal that the social security act be amended to provide a cash benefit to persons, aged fifty or older, who are totally disabled is one that should be studied carefully by physicians. They would have great responsibility thrust upon them. They would be required to furnish statements regarding their patients' ability to work. They would also be expected to foster the rehabilitation of their patients when the rehabilitation goal would mean the loss of the cash benefit to the patient. There will be no means test as a pre-requisite to this payment. It will be paid alike to a man with dependents, a wife supported by her husband, or an independently wealthy individual if covered by social security. The payments can exceed a hundred dollars a month and are tax free.

A review of persons receiving disability benefits reveals that the physical status is only one factor in producing the state of nonemployability. Other factors include lack of desire to work, lack of training for work, and independent means permitting inactivity. On the other hand, there are numerous and outstanding instances of severely handicapped persons working regularly, filling responsible positions, making notable contribution to society and deriving immense personal satisfaction because of the opportunities afforded them.

There are several facets of this proposal that need careful study. Would not an expansion of the rehabilitation activities and encouragement of the "Employ the Handicapped" movement do more to further human development?

Should not a study be made to determine how many of the individuals who actually need relief, those on the welfare rolls, are eligible for social security benefits?

Should not more study be made of the social security "freeze" before expanding the disability benefits? Is the Social Security Administration facing any problems in determining the disability status of the applicants for these benefits?

If these studies were made, we would be in a better position to say whether this proposal is an "indiscriminate charity that needs to be censured".

E.S.W.

Society Proceedings

Richmond Academy of Medicine.

Dr. W. L. Ball has been installed as president of the Academy, succeeding Dr. R. D. Butterworth. Other officers are: president-elect, Dr. Elam C. Toone, Jr., and vice-presidents, Drs. M. M. Pinckney and D. Coleman Booker.

Arlington County Medical Society.

Dr. Hermann F. Diamant was elected president of this Society at its meeting in December. Dr. Stephen J. Sheey is vice-president, Dr. T. A. McGavin, secretary, and Dr. Clifford E. Bagley, treasurer. Dr. H. C. Bates was named a member at large on the Board of Directors. He is the immediate past president.

Fredericksburg Medical Association.

Dr. James G. Willis was recently named as president of this Association. Dr. Nancy Whitticar is vice-president and Dr. Charles P. Barnett, secretary-treasurer.

Alexandria Medical Society.

On December 2nd, fifty of the members of this Society attended a dinner meeting at Ft. Belvoir as guests of the Ft. Belvoir group. Colonel Charles L. Kirkpatrick is Commanding Officer at the Hospital, and arrangements for the meeting was made by

Colonel U. R. Merikangas, Chief of Professional Service and Medicine. The topic, "Newer Techniques in Vascular Surgery" was presented by Lieutenant Colonel Carl Hughes of the Surgical Service of Walter Reed Hospital.

Northern Virginia Academy of Surgery.

The founding meeting of the Academy was held in Arlington on December 19th. The new group includes all qualified surgeons and surgical specialists in Arlington and Fairfax Counties and it is hoped that membership will be extended to all qualified and interested surgeons and surgical specialists in the whole northern Virginia area. The aims of the Academy are the improvements of the standards of surgery and surgical care in northern Virginia.

Officers of the Academy are: President, Dr. Lloyd Burk; vice-president, Dr. John Alexander; secretary, Dr. Leonard Weyl; treasurer, Dr. Michael Puzak; Counsellors, Drs. Andrew Welebir, Garrett Swain, and Allen Ferry. All officers are of Arlington.

The first scientific meeting was held on January 31st at which time Dr. Harold C. Hunt, undersecretary of the Department of Health, Education, and Welfare, spoke on "Organization and Programs of the Department of Health, Education and Welfare."

Calendar of Coming Events

- MEDICAL SOCIETY EXECUTIVES POSTGRADUATE SEMINAR—Chicago, Illinois—February 6-8.
- ANNUAL MEETING OF THE AMERICAN COLLEGE OF RADIOLOGY—Drake Hotel, Chicago Illinois—February 10.
- 52ND ANNUAL CONGRESS ON MEDICAL EDUCATION AND LICENSURE—Palmer House, Chicago, Illinois—February 11-14.
- AMERICAN COLLEGE OF SURGEONS—The Bellevue-Stratford, Philadelphia, Pennsylvania—February 13-16.
- INTERNATIONAL COLLEGE OF SURGEONS—Greenbrier Hotel, White Sulphur Springs, West Virginia—February 13-15.
- VIRGINIA CHAPTER OF THE AMERICAN ACADEMY OF GENERAL PRACTICE—The Homestead, Hot Springs, West Virginia—March 2-3-4.
- SOUTHEASTERN SURGICAL CONFERENCE—John Marshall Hotel, Richmond, Virginia, March 12-15.
- 8TH ANNUAL AMERICAN ACADEMY OF GENERAL PRACTICE SCIENTIFIC ASSEMBLY—Armory, Washington, D. C.—March 19-22.
- 8TH ANNUAL CONVENTION—INTERNATIONAL ACADEMY OF PROCTOLOGY—The Drake, Chicago, Illinois, April 23-26.
- VIRGINIA SOCIETY OF OPHTHALMOLOGY AND OTOLARYNGOLOGY—Convention Cruise to Havana and Nassau (sailing from Norfolk)—May 26-June 2.

Virginia Academy of General Practice.

The sixth annual Scientific Assembly of the Academy will be held at The Homestead, Hot Springs, March 2-4.

The program is as follows: "Certain Aspects of Hypothyroidism in Children" by Dr. Weston M. Kelsey, Winston-Salem, N. C.; "Misconceptions in Poliomyelitis" by Dr. George J. Boines, Wilmington, Del.; "Look Again Doctor" by Mr. Theodore Wiprud, Washington, D. C.; "Management of Hypertension" by Dr. Ed. Orgain, Durham, N. C.; "Observations on the Treatment and Prevention of Coronary Heart Disease" by Dr. Paul D. White, Boston; "Palliative Care of Incurable and Inseparable Cancer and Related Neoplasm" by Dr. Murray Copeland, Washington, D. C.; "Psychiatric Referrals" by Dr. W. T. Thompson, Jr., Richmond; "The Responsibility of the Physician to the Patient with Kidney Stone or Kidney Infection" by Dr. William Parson, Charlottesville; "A Contribution to the Surgery of Foreign Bodies" by Dr. Thomas Johns, Richmond; "Recent Advances of Treatment in Neuropsychiatry" by Dr. Walter Klingman, Charlottesville. A symposium on "Peptic Ulcer" will be conducted by Drs. Charles Caravati, John M. Emmett, W. T. Thompson, Jr., Allen Barker, Thomas Johns, and G. R.

Hennigar.

Dr. Martin Again Honored.

Dr. Walter B. Martin, Norfolk, immediate past president of the American Medical Association, has been named Norfolk's "First Citizen of 1955". He received the Distinguished Service Award of the Cosmopolitan Club at a banquet in his honor on January 19th. The award is made to the citizen who has best served his community during the year or to one for continued service to the community through a period of years.

Dr. Martin is the second physician to receive this award. The late Dr. Southgate Leigh, Sr., was named "First Citizen" in 1929.

Going Strong at 88.

The December issue of "The Commonwealth", carries a very interesting article on Dr. Halstead Shipman Hedges of Charlottesville. He recently celebrated his 88th birthday and still works five days a week in his office. On his day off he goes hiking over the Blue Ridge Mountains or fishing or canoeing. He frequently sleeps out of doors, even in winter, with only a strip of canvas for shelter. An expert bowman, he makes his own bows and arrows and uses them for hunting. Dr. Hedges has been

in active practice for sixty-three years. He has taught a Sunday School class of teen-age boys for more than fifty years.

A portrait of Dr. Hedges was unveiled in December in the lobby of the Martha Jefferson Hospital in Charlottesville. Friends and fellow physicians made donations to have the portrait made. It was painted by B. A. Makielski.

"You have not gone far with him before you know that there is a man who is able to commune with God."

Waynesboro Community Hospital.

Dr. J. Treacy O'Hanlan has been named president of the Medical Staff of this hospital, with Dr. James L. Davis as vice-president, Dr. W. A. MacIlwaine, secretary, and Dr. J. Powell Anderson, treasurer. Others named to the executive committee are Drs. H. D. Murray and D. E. Watkins.

Dr. Wilson Resigns.

Dr. David C. Wilson has resigned as head of the Department of Neurology and Psychiatry at the University of Virginia.

Dr. R. W. Garnett, Jr., has been named acting chairman as of January 1st.

Dr. Francis R. Whitehouse,

Lynchburg, is the subject of a story in the December 26th issue of Sports Illustrated magazine. Four years ago he started raising Beagle hounds as a hobby, and a month ago three of his Briarwood Kennels were winners in the National Beagle Club's annual field trials.

Mary Washington Hospital Staff.

Dr. J. Richmond Low, Fredericksburg, is new president of the staff, succeeding Dr. John L. Smoot. Dr. John B. Rose is vice-president, and Dr. T. Stacy Lloyd is secretary-treasurer. Dr. J. C. MacKnight is new representative on the hospitals board of governors.

Doctor's Promise—A Children's Home.

Thirteen years ago in Petersburg, a policeman found a small Negro boy huddled under some steps, sleeping in the cold winter weather. He took him to the Petersburg Hospital where Dr. C. S. Dodd was called to treat the boy. After the boy was discharged, Dr. Dodd couldn't forget the pitiful figure and vowed to start a home for orphaned Negro children. First efforts to get a home started and failed and five years later, Dr. Dodd assembled some Petersburg men for dinner—and also to ask their help. The next day he made a \$40.00 down payment against the \$15,000 price of a farm in Chesterfield

County. In three months he had raised enough money through contributions to satisfy the mortgage. In 1950 a \$40,000 dormitory for boys was built and in 1955 a girl's dormitory was built. There are now 28 children at the home, ranging in age from 3 to 17.

Dr. John B. Truslow,

Dean of the School of Medicine, Medical College of Virginia since 1951, has resigned to accept an appointment as executive director of the medical branch of the University of Texas at Galveston. His appointment becomes effective April 1st.

Virginia Baptist Hospital Staff.

Dr. Frank Whitehouse has been elected president of the medical staff of this hospital in Lynchburg. Dr. W. H. Barney was named vice-president, and Dr. Frank M. Buck, Jr., secretary. Three new trustees are Drs. Buck, Holcombe Hurt, and Clyde Adkerson.

Petersburg Medical Faculty.

Dr. Joseph P. Whittle has been elected president of the Petersburg Medical Faculty, succeeding Dr. Glenn W. Phipps. Dr. William S. Grizzard was elected vice-president and Dr. James D. Mason, secretary-treasurer.

Bibliography of Medical Reviews.

The Armed Forces Medical Library announces the publication in May of a Bibliography of Medical Reviews. The bibliography, arranged by subject, will contain approximately 800 references to review articles in clinical and experimental medicine and allied fields which have appeared in the calendar year 1955.

Copies will be available upon request to the Director, Armed Forces Medical Library, 7th Street and Independence Avenue, S. W., Washington 25, D. C.

Dr. R. D. Hudnall,

Lilian, has been re-elected as a Northumberland County supervisor.

Northampton-Accomack Memorial Hospital.

The Medical-Surgical Staff of this hospital has elected the following officers for 1956: President, Dr. Walter Eskridge, Parksley; vice-president, Dr. W. C. Henderson, Nassawadox; secretary, Dr. J. R. Hamilton, Nassawadox. Additional members of the Executive Committee are Dr. W. T. Green, Nassawadox, and Dr. W. C. Fritz of the Department of Health.

At the final meeting of 1955, it was noted that there has been excellent progress in the work of the Tumor Clinic under the direction of Dr. J. R. Mapp.

Also the program of Continuation Education has been very successful with monthly conferences under the direction of outstanding members of the faculty of the Medical College of Virginia. This program will be continued throughout the coming year.

Arlington Hospital Staff.

Dr. John H. Judson has been elected president of the Arlington Hospital Staff. Others elected to serve with him are Drs. K. C. Latven and John E. Alexander.

Dr. Harvey B. Haag

Richmond, has resigned as chairman of the Department of Physiology and Pharmacology of the Medical College of Virginia in order to devote more time to research and writing. He will retain his position as professor of pharmacology.

Dr. Emily C. Runyon,

Richmond, celebrated her 98th birthday on December 14th. She was the first woman doctor to practice in Richmond.

Dr. David Milford Hume,

Assistant professor of surgery and director of surgical research laboratories at Harvard Medical School, has been named professor of surgery and chairman of the surgery department at the Medical College of Virginia.

Dr. John L. Harris, Jr.,

Has been named chairman of the 1956 Heart Campaign in Roanoke.

Dr. Robert F. Bondurant is in charge of speakers and exhibits.

The 1956 Virginia March of Dimes.

Although the number of polio cases reported in Virginia in 1955 was less than half the average number of the previous five years, Virginia will still have polio problems in 1956. The Salk vaccine has proved to be a major weapon against paralytic poliomyelitis, but it has not yet won the war against this disease.

Continuing cooperation of physicians must be had both in administering the vaccine and in caring for patients already paralyzed and *who will* be paralyzed in spite of the vaccine. The Salk vaccine is not 100% effective and it will take considerable time yet, perhaps years, before all individuals most susceptible to paralytic poliomyelitis can be fully immunized against it.

The National Foundation for Infantile Paralysis, supported through public contributions to its January March of Dimes, has made an enviable record, both in this state and nationwide, for meeting the

problems posed by paralytic polio. In 1955 the March of Dimes gave over 366,000 cc. of Salk vaccine without charge to the state of Virginia to initiate a statewide vaccination program.

Dr. James K. Morrow,

St. Albans Sanatorium, Radford, was a member of the post-graduate cruise to the Caribbean, sponsored by Duke University, early in December.

Dr. Clifford Webb

Addressed the Alexandria Junior Woman's Club at its December meeting, his subject being on Mental Health.

Weekly Newspaper for Physicians.

A new publication, the first weekly newspaper of its kind for physicians and their associates in the medical profession, was introduced on January 2 by The Upjohn Company, pharmaceutical manufacturers, of Kalamazoo, Mich.

"SCOPE Weekly," which is prepared for Upjohn, as a service to the medical profession, by Physicians News Service, Inc., is designed to bring to physicians current news and information of medicine and related sciences. An introductory statement on the front page of Vol. 1, No. 1, says that "medical journalism is still a frontier in the field of communications, at least as concerns the reporting to the physician of medical events of the moment. . . . Now, SCOPE Weekly launches a deeper penetration of the frontier by reporting each week the events and developments in medicine and science from the regional, national and international sources of such news."

The newspaper presents reports from foreign medical meetings, a special "News from the Capital" column, reviews of new medical books, and articles on the challenges of medical research. It also has entertainment features, such as cartoons, crossword puzzles, and a column directed toward the interests of the physician's family.

Halifax Community Hospital.

At a recent meeting of this hospital in South Boston, Dr. W. J. Hagood was elected chief of staff, Dr. C. B. Dixon, vice-president, and Dr. W. G. Wysor, secretary. Elected as members of the Executive Committee are Drs. Hagood, W. B. Brann, W. L. Eastlack, W. G. Puryear, and L. P. Bailey.

Hawaii Medical Association.

The Centennial Anniversary of this Association will be held April 22-29. There will be scientific sessions with outstanding medical speakers from various parts of the United States. The Association

is also planning a great pageant depicting the colorful history of medicine in the Islands, a luau (Hawaiian feast), and other events, with plenty of free time for sightseeing and relaxation.

Dr. Clarence E. Fronk, President, has extended an invitation to all doctors to attend this meeting, bring their families, and help celebrate in true Hawaiian style.

In order to best coordinate transportation and activities for the Centennial Celebration, all arrangements for travel from the West Coast to Hawaii, for hotel accommodations and sightseeing should be requested from the Hawaii Medical Association, 510 South Beretania Street, Honolulu 13, T. H. Your favorite travel agent in your hometown will be delighted to set up the arrangements for you with the Association at no cost to you.

Dr. Kilby Leaves Toano.

Dr. Edward B. Kilby, Toano physician for the past thirty-four years, has closed his office there and will make his home in Newport News.

Dr. S. Edwin Hughes, Jr.,

Has resigned as medical director of Grandy Sanatorium, Norfolk, and returned to active duty in the Navy. He has reported for duty at Charleston, S. C.

Care of the Alcoholic.

The Keeley Institute of Greensboro, N. C., sponsored January 23-25 a Personal Counseling Workshop in the Care of the Alcoholic. This was directed by Dr. Russell L. Dicks, Professor of Pastoral Care, Duke Divinity School, and Chaplain of Duke Hospital. Lecturers were Drs. Robert H. Dovenmuehle, Duke University, Department of Psychiatry; Dr. Ben F. Fortune, Greensboro; Mr. Paul H. Fraser, Executive Director, Georgia State Commission on Alcohol; Dr. Joseph Garrison, Pastor, Presbyterian Church of the Covenant, Greensboro; Miss Roberta S. Lytle, Psychiatric Social Work Consultant, N. C. Alcoholic Rehabilitation Program; and Mr. William R. Boothe, Director of The Keeley Institute.

Obituaries

Dr. R. Sumter Griffith,

Prominent and beloved physician of Waynesboro, died December 14th, having been hospitalized following a fall at his home. He was ninety-four years of age and was the oldest living alumnus of the University of Maryland Medical School, having graduated in 1886. Dr. Griffith moved to Waynesboro (or what was then Basic City) in 1891 and after more than 56 years of practice, he retired in 1947.

For Sale.

Hospital-Clinic! Yes it is most unusual to find one on the market, but due to circumstances this one must be sold. Here is a grand opportunity for two general practitioners not only to make a lot of money but to render a great service to this community. This hospital has ten rooms, plus very modern living quarters, brick construction, with beautifully landscaped 2 acre tract, and just about every type equipment you would need, which is practically new. It is available at a sacrifice of \$85,000.00. Financing can be arranged. Contact realtors L. L. Jonas and J. Hunter Roberts, associated with the firm of Jno. H. Windel, Inc., 34 W. Kirk Avenue, Roanoke, Va. Phone 3-2478. (*Adv.*)

For Rent.

Doctor's office. New, air-conditioned building. Equipped for one-man practice. Excellent opportunity for rapidly growing suburb in Northern Virginia. Contact #65, care the Monthly, P. O. Box 5085, Richmond 20, Va. (*Adv.*)

For Sale.

Suburban properties. Homes and timberlands, located in the vicinity of Richmond and Hopewell. Sound investment opportunities. Call or write W. L. Broadus, phone 844, P. O. Box 479, Hopewell, Va.

General Surgeon

Desires association or solo practice in city with available hospital facilities. Board eligible, 34, category IV, university trained including sub-specialties. Available July 1956. Write #55, care the Monthly, P. O. Box 5085, Richmond 20, Va. (*Adv.*)

Location for Doctor.

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He held a 50-year pin for service with the Masons and a diamond pin for his service as physician for the Norfolk and Western Railway. Dr. Griffith was for many years active in political and civic affairs and served as mayor of Basic City for eleven years. Following the consolidation of Basic City and Waynesboro, he served for ten years on the city council there. In 1954 Dr. Griffith was presented a plaque by the Waynesboro Fire Department com-

memorating 62 years of service as a volunteer fire fighter.

He was a Life Member of The Medical Society of Virginia, having joined in 1898.

An editorial in The News-Virginian stated "Dr. Griffith was, indeed, a 'grand old warrior'. . . . We bow humbly and reverently before the bier of this man who contributed so much to the community and who asked so little in return. He was richly blessed by the assurance that he never deviated from the pathway he considered right. He carried with him into eternity the love of untold thousands. He lived vigorously and confidently."

Dr. Griffith is survived by two sons and a daughter.

Dr. William Patton McDowell,

Well known physician of Norfolk, died December 31st, at the age of seventy-nine. He had apparently been in good health and had a heart attack while sitting in a chair at his home. Dr. McDowell was a graduate of the Medical College of Alabama in 1900. He was a charter member of the American Academy of Pediatrics and a member of its board in 1936. Dr. McDowell was a past president of the Norfolk County Medical Society and a Life Member of The Medical Society of Virginia, having joined in 1912. A son and a daughter survive him.

Dr. William Chappell Webb.

Well known physician of Prince George County, died January 2nd. He was seventy-seven years of age and a native and life-long resident of Prince George County, making his home in Disputanta. Dr. Webb graduated in medicine from the University of Maryland in 1904. He had been a member of The Medical Society of Virginia since that time and was made a Life Member in 1954.

His wife and a daughter survive him.

Dr. Alfred Leon Kruger,

Well known Norfolk physician, died December 25th. He was recovering from a heart attack suffered in November. Dr. Kruger was forty-four years of age and received his medical degree from the University of Virginia in 1935. He was associate chief of the medical division of De Paul Hospital and chief of the thoracic disease division at Norfolk General Hospital. He was senior attending physician at both hospitals. Dr. Kruger was particularly interested in chest diseases and participated actively in state and local tuberculosis control and treatment programs. Last July he was appointed governor for the State of Virginia in the American College of Chest Physicians. He served in the Medical Corps

of the United States Army during World War II. Dr. Kruger was a member of many national state and local medical organizations and also served on local civic organizations. He had been a member of The Medical Society of Virginia for a number of years.

His wife, a daughter and a son survive him.

Dr. Manley Hunter Eames,

Providence Forge, died January 11th. He was sixty-nine years of age and a graduate of the Loyola School of Medicine in 1914. Dr. Eames had practiced in New Kent County for forty-one years. He was a Mason and had been a member of The Medical Society of Virginia for thirty-three years. Two daughters survive him.

Dr. Abbitt

The death of Dr. John Willis Abbitt on September 26, 1955, marked the passing of one of our most prominent members. He was born in Windsor, Virginia, on March 4, 1886. Dr. Abbitt established practice in Portsmouth in 1910, after completing his medical education at the Medical College of Virginia and the University of Maryland.

For forty-five years he lived a life in this community as a physician true to his calling, one who was willing and particularly capable of meeting every requirement of a family practice.

John Abbitt regarded the affection and respect of his family, his professional associates, and his patients as his most valuable possessions. He had an unusual capacity for work, and his generosity to mankind in general, and devotion in the service he rendered his patients was unbounded. His colleagues marvelled at his ability to make countless house calls and maintain an enormous obstetrical practice in addition to a heavy surgical practice. Yet most of all he enjoyed life, the sharing of its benefits with his family and his clientele. His record stands as an exemplary one of devotion to the ideals of furnishing the best possible medical service to his patients regardless of their economic level in the community. His activity in church, business, civic, and social affairs again reflected his interest in the life of the community of which he was such a valuable member.

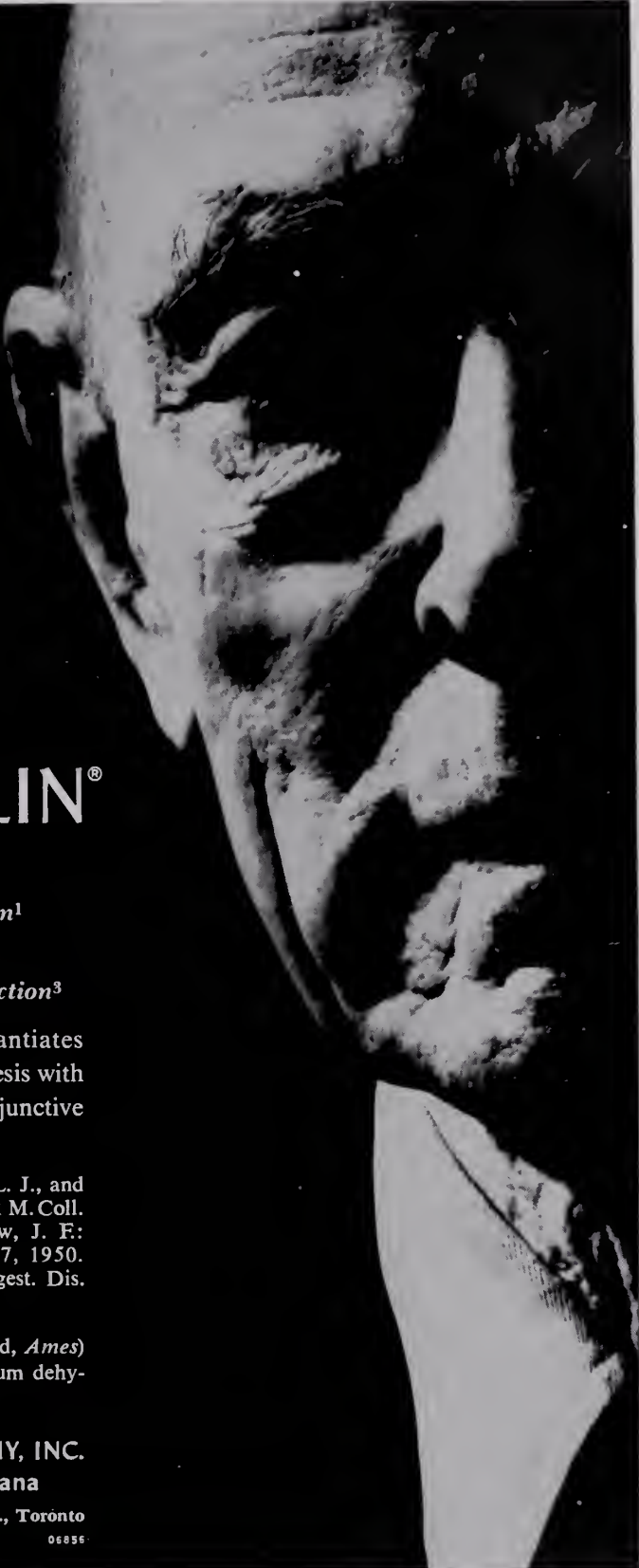
Dr. Abbitt in his forty-five years of intensive practice here, truly lived and exemplified the ideals of the Hippocratic Oath in dedicating his professional life to the relief, twenty-four hours a day of suffering humanity, with or without remuneration. He holds a unique place in local medicine and will be remembered and missed as long as any survive who came under his professional care and stimulating influence.

BE IT RESOLVED THAT, The Norfolk County Medical Society record in its minutes our sorrow in Dr. Abbitt's passing, that a copy of these resolutions be entered in the minutes of the Society, a copy be forwarded to the family, and a copy be sent to The Medical Society of Virginia.

M. H. HOOD, M.D.

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(1) Schwimmer, D.; Boyd, L. J., and
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(3) King, J. C.: Am. J. Digest. Dis.
22:102, 1955.

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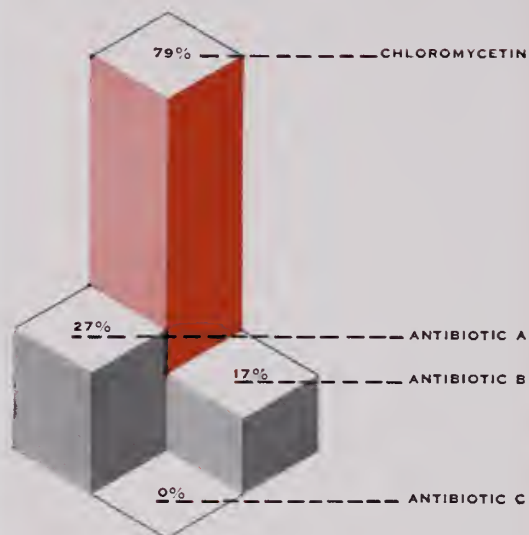
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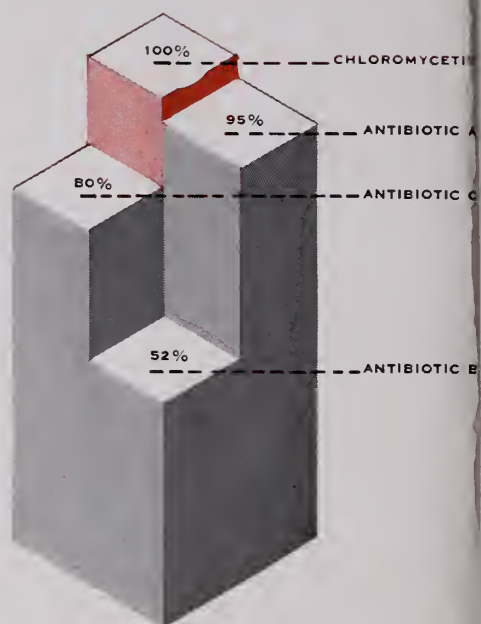
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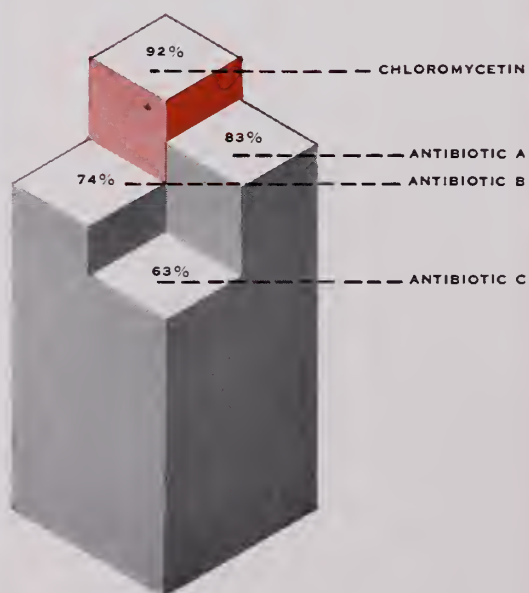
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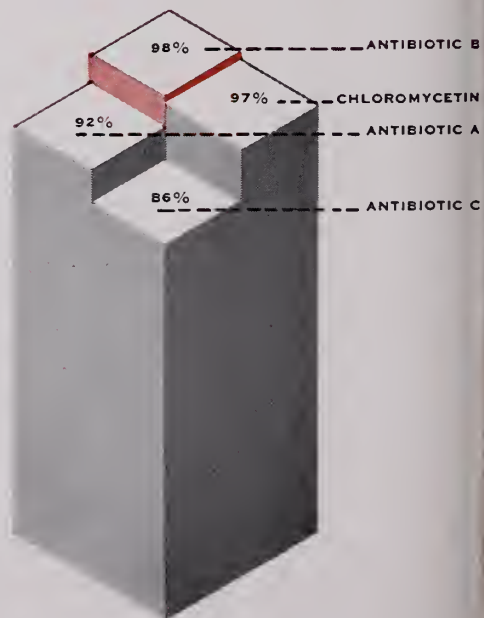
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VIRGINIA MEDICAL MONTHLY

(Founded by Landon B. Edwards, M. D., April 1874)

PUBLISHED MONTHLY BY THE MEDICAL SOCIETY OF VIRGINIA

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1105 West Franklin Street

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Annual Subscription—\$2.00

Single Copies—25¢

TABLE OF CONTENTS

GUEST EDITORIAL

The Rh Dilemma—Williams Bickers, M.D.----- 91

SCIENTIFIC ARTICLES

Otolaryngological Manifestations of Allergy—
J. Warrick Thomas, M.D.----- 93

Rupture of the Normal and Diseased Spleen—
James S. Berger, M.D.----- 101

Characterization of Certain Endocrine Syndromes by Spe-
cific Laboratory Assay—Isabel Taliaferro, M.D.----- 108

Corynebacterium Diphtheriae Meningitis—
Fred N. Mitchell, M.D., and W. W. Waddell, Jr., M.D. 113

Operative Cholangiograms—
John D. Adams, M.D., and R. D. Noel, M.D.----- 116

PUBLIC HEALTH

Reporting Communicable Diseases----- 120

MENTAL HEALTH

Who Are the Patients in Our Mental Hospitals?----- 122

THE MEDICAL SOCIETY OF VIRGINIA

Special Committee to Study the Treatment of Alcoholism-- 124

WOMAN'S AUXILIARY ----- 127

BOOK ANNOUNCEMENTS ----- 131

PRESIDENT'S MESSAGE

Half-Way Public Relations?----- 132

EDITORIAL

"Belroi" ----- 133

SOCIETY PROCEEDINGS ----- 134

NEWS ----- 135

OBITUARIES ----- 139

SHORT SUBJECTS—Prednisone Used for Allergies, Anemia, 100;
Have You Contributed to the AMEF? 107; One Shot of Penicillin,
119; Hypnotism Warning, 121; Celery Stalks Through Medicine,
123; "Castile" Changes Meaning, 126.

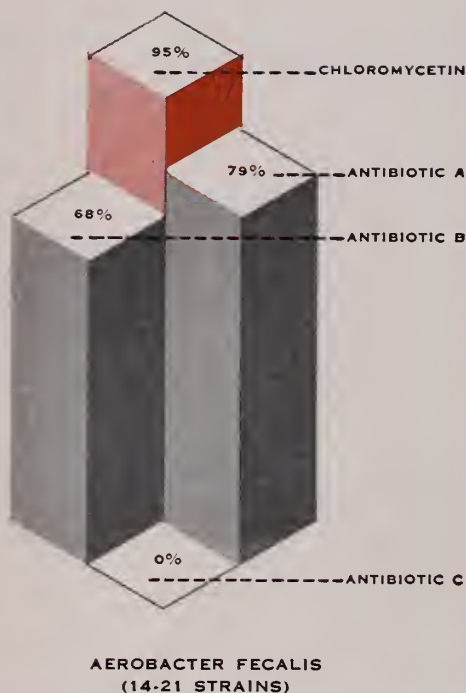
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INDEX TO ADVERTISERS—Page 52

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This graph is adapted from Altemeier, Culbertson, Sherman, Cole, Elstun, & Fultz.¹ It represents the second and concluding part of data presented in a previous issue.



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Guest Editorial

The Rh Dilemma

LATE afternoon of an autumn day in the year 1941 and a busy prenatal session of the I.V.N.A. clinic had ended. The staff lounged on examining tables and stools as was custom when Dr. M. Pierce Rucker appeared in a discoursing mood. Friendly and kindly, lover of things obstetrical new and old was Dr. Rucker of Richmond. A breviary of obstetrical wisdom might be culled from his sayings. On this particular afternoon one of the neophytes introduced the subject of Rh factor.

Levine had published his preliminary reports confirming the observations of Landsteiner and Weiner. Youthful enthusiasm bubbled its interest in this new found etiology of heretofore unexplained jaundice in the newborn. Dr. Rucker, with his usual sufferance, permitted the erudition of his juniors to soar. When each had extolled the virtues of the Rh discovery there was silence. The bombshell which inevitably followed such bursts of enthusiasm came: "How many neonatal deaths from icterus neonatorum have you seen?"

Lesser minds scurried back over hospital days and a few years in private practice to recall only a few newborn deaths associated with icterus. Dr. Rucker added several from his wide experience. It was conceded that many erythroblastotic intrauterine deaths may have passed unrecognized. All agreed that Rh determination as a routine procedure in prenatal care should be initiated.

Came the period of Rh subtypes and antibody determinations, the Coomb's test and the blocking antibodies. Anxiety mounted with the rising titers and the short lived era of premature induction of labor and elective cesarean section in the interest of the baby was introduced. The importance of isoimmunization as a cause of intrauterine fetal death soon became apparent. Transient jaundice with a positive Coomb's test became a frequent clinical finding and these babies were treated first by simple transfusion and then by exchange transfusion. They did well as they had formerly done well without treatment. Kernicterus and hydrops continued to take its toll. The most disconcerting element was the almost complete inability to predict clinical or hematologic state of the newborn from anti-Rh antibody titers in the mother.

At a meeting of obstetricians in 1950 it was stated that any physician caring for an Rh negative patient failed of his duty if he did not perform repeated antibody determinations. This was a bit startling. Although the subject was of great academic interest there were some who felt that they had been unable to transmute the routine Rh determination into a tool of clinical usefulness. Large clinics reported an incidence of erythroblastemia of one in every 60 Rh negative multigravida and of this small group the majority of babies developed a moderate anemia and fleeting jaundice and went on to spontaneous recovery.

As the laboratories of the nation became heavy laden with more and more antibody titrations and the number of Rh negative patients with anxiety neuroses increased,

some obstetricians were concerned that perhaps too much emphasis was being placed on blood type and antibody titrations and the clinical evaluation of the baby was being neglected. The clinical wisdom of subjecting 15% of Caucasian women, not to mention their husbands and relatives, to anticipation of a possible tragedy which occurred so rarely was called in question. Musings on the pre-Rh era in which a large number of babies with transient jaundice aroused little concern prompted the thought that perhaps some babies were being transfused needlessly. On the basis of past experience spontaneous recovery could be expected in most of them.

Erythroblastosis fetalis of sufficient gravity to endanger the baby's life can usually be diagnosed by ordinary clinical means: jaundice within the first 48 hours of life, erythroblastemia with severe anemia, hepatomegaly, generalized edema, and any jaundiced baby with a serum bilirubin exceeding 20.0 mg. per cent. Jaundice with a serum bilirubin exceeding 20.0 mg. per cent calls for heroic efforts to obtain complete or near complete blood replacement. Babies showing such clinical signs at any period of neonatal life should receive whole blood just as soon as diagnosis is made. The point is that treatment should be reserved for those babies showing clinical evidence of disease. Determination of maternal Rh antibody titer rarely enables one to anticipate the diagnosis. Indeed some of the most severe cases of erythroblastosis, even intrauterine death, are seen with low antibody titers. Granted that it was possible to anticipate the disease in the newborn by any type of prenatal maternal blood study, the only advantage would be one or two hours saved in instituting treatment. It is obviously impractical to have a standby exchange transfusion team available at the birth of every baby born of a mother with anti-Rh antibodies.

It is within the limits of every physician to diagnose erythroblastosis in the newborn. Kernicterus and hydrops fetalis in the living baby are quite apparent at the time of birth and treatment in the form of exchange transfusion can be initiated without delay. Under the best hospital organization the prognosis is grave. For jaundice in the newborn the nurses responsible for neonatal care can be readily trained and alerted to the necessity of watching carefully for signs of jaundice in all babies during the first 72 hours of life. The newborn skin under a white fluorescent light reveals evidence of icterus in ample time to initiate treatment. Jaundice appearing during the first 48 hours is most significant. A routine blood count and blood smear on all newborns on the morning after delivery is helpful. These two procedures: alerting the doctors and nurses to watch for clinical evidence of jaundice, and the routine hematologic study during the first 24 hours of life provide a simple and sane routine for early detection of erythroblastosis. Every baby with icterus neonatorum of whatever grade should have a serum bilirubin and when this exceeds 20.0 mg. per cent, exchange transfusion is indicated.

It might be suggested that clinical evaluation of the baby is of more importance than maternal blood studies. Not to be forgotten is the fact that mothers who have given birth to an erythroblastotic stillborn have a better than 20% chance for delivery of a healthy baby in a subsequent pregnancy. The heterozygous Rh positive husband is an important consideration and, even more important, wide variations in degree of isoimmunization are found in repeated pregnancies in the same individual. It is the baby who suffers this malady and not the mother. There is no substitution for careful clinical observation of the baby by nurses and physicians. A newborn who needs transfusion should receive it on the basis of clinical and laboratory evidence at hand. The circumstantial inferential evidence obtained from study of the mother's blood will probably be given less significance as experience accumulates.

In the case of Rh factor the sins of the fathers should not arbitrarily be visited upon the sons—even to the first generation.

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Otolaryngological Manifestations of Allergy

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THE recognition of the role of allergy and its relationship to diseases of the paranasal sinuses is of fairly recent origin, as well as other allergic manifestations involving the ear and also the trachea. Careful consideration and correlation is warranted in arriving at an accurate diagnosis. In view of the close relationship of the allergist and the otolaryngologist, steady progress has been achieved in controlling the varied symptoms of our mutual patients. In addition to hay fever and perennial nasal allergy involving the nose and the accessory sinuses, one also has to consider additional associated manifestations in this field such as involvement of the external ear, eustachian tube, middle ear, concha, labyrinth, resulting in deafness, tinnitus and dizziness. In addition, one may see swelling involving the submaxillary glands, swelling of the parotid, involvement of the larynx, as well as the esophagus, allergy of the eye and allergic headaches.

There may be other multiple associated manifestations of allergy involving other systems, including the skin, the lower respiratory tract, as well as the gastro-intestinal tract. The relationship between respiratory allergies and respiratory infections is one that is very close. Each may occur independently of the other or occur in combination with each other. It is necessary that we differentiate infections and nasal allergy from the vascular and secretory disturbances of the nose arising from acute or chronic irritations of the nasal mucosa such as one sees secondary to chemicals and other non-allergic conditions, including cerebro-spinal conditions, including cerebro-spinal rhinorrhea, tuberculosis, syphilis and complications of endocrine disorders, avitaminosis, circulatory and renal diseases.¹

ALLERGY OF THE NOSE AND PARANASAL SINUSES

There are three significant divisions in the classification of chronic diseases of the nose and paranasal sinuses: First is allergy or sensitivity to certain allergens or antigenic substances. Such symptoms as sneezing, itching, obstruction, discharge, edema, eosinophilic infiltration of the involved tissues and the presence of eosinophiles in the secretion are frequently observed. The second group is one of pure

infection of the mucous membrane not associated with allergy where the mucous membrane appears rather thin and fibrous, and at times may be covered with a granulation tissue. Polyps are very rare in this group. The third main subdivision is allergy with superimposed infection, in which one observes a purulent nasal discharge which contains bacteria and a predominance of neutrophils.

Shambaugh² reports that approximately 70 per cent of the patients having chronic infections of the sinuses and 90 per cent of chronic nasal infections have an underlying allergic factor which is responsible for their chronicity. Kuhn and Linton³ reported that, out of a group of 720 patients having nasal complaints, 140, or 19 per cent, were explained on a basis of allergy. It is frequently observed by rhinologists that infections outside of the nose and paranasal sinuses include an extension of the process from an abscessed or infected tooth involving a sinus, and a second condition resulting from the removal of a tooth whose root extends into the antrum, creating a sinus tract from the mouth to the antrum. In the differential diagnosis of a nasal allergy from an infection, one has to give careful consideration to the history which must be reasonably detailed and accurately correlated with the clinical, rhinoscopic and roentgenographic examinations, as well as cytologic studies of nasal smears. There are many serious conditions of the nose and paranasal sinuses which may be diagnosed on a basis of symptomatology and rhinologic examination.

Hansel¹ worked out various types of stains, including Giemsa's and Wright's, and in 1940 developed an eosin-methylene blue stain for the purpose of examining nasal secretions and recording cytologic findings. He feels that the cytologic picture is one of the most important factors in arriving at a diagnosis. The cytologic picture in allergy is evidenced by the presence of many eosinophiles in the nasal secretion, and he feels further that absolute evidence of an allergic process is evidenced by the presence of these eosinophiles. With the persistent absence of eosinophiles, except in cases complicated by sup-puration, allergy may definitely be excluded. In those patients having infection, the smears may show

Presented before The Medical Society of Virginia, October 17, 1955, Richmond, Virginia.

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neutrophiles and occasionally a few scattered eosinophiles. Particularly in patients with an infection and allergy, as the infection subsides the neutrophiles gradually disappear and the eosinophiles increase and the discharge from the nose finally becomes clear and watery or mucoid. In addition to specimens from the nose, specimens may also be obtained from the antrum. We usually use waxed paper or a cellophane handkerchief and have the patient blow his nose, or cotton swabs may be used in selected cases where no secretion is available for blowing. Not only do we observe allergic manifestations with or without infection in adults, but the presence in children is very evident. There are also various types of non-infectious rhinitis which are commonly seen in adults and which also occur in children. These may include the true atopic rhinitis which is the same as seasonal hay fever or the non-seasonal perennial allergic rhinitis following the inhalation of dust or other antigens and the so-called atopic vasomotor rhinitis resulting from intrinsic factors. Not only do we observe these in older children, but also in the young child.

Particularly in children from early life through childhood, one observes periodic flare-ups with fever and discharge which become muco-purulent. There was a time in the past, after repeated episodes that the removal of adenoids was recommended as the best form of treatment regardless of the age of the child. Many of these patients responded well but many did not, and, with the introduction of antibiotics, many of the results have been doubtful. When one is confronted with the question as to whether children are suffering from chronic infections, repeated infections or an allergic manifestation, the most important point to consider is the family background.⁴ A history of allergy or allergic diseases in the mother and/or the father is very significant. These patients may have concomitant allergic manifestations, such as eczema or hives. It is a great mistake to administer sulfonamides, penicillin, aureomycin and other such drugs for flare-ups of nasal symptoms, particularly if they have occurred for a fairly reasonable period of time. Certain children may develop chronic coughs associated with an allergic rhinitis with an accompanying post-nasal drip, and these may be a forerunner to bronchial asthma when present either with or without an infection.

PERENNIAL ALLERGIC RHINITIS

These symptoms simulate hay fever of the seasonal type in its clinical aspects, but differ chiefly because of etiologic factors of those other than pollens. The

allergens explaining these chronic symptoms are substances that are present more or less constantly in a patient's environment and may consist chiefly of ingestants, inhalants and bacteria or a combination of these substances. The characteristic symptoms are itching, sneezing, increase of nasal secretion and blocking or stuffiness of varying degrees of intensity and duration according to the exciting agents and degree of sensitization. Symptoms may vary according to the time of day and whether the patient is in bed or out. Symptoms may occur alone or in combination. A combination of symptoms usually most annoying and discomforting are those of nasal obstruction and marked swelling of the turbinates and an increase in secretion of thick, tenacious mucus which may be present in the posterior pharynx. Like hay fever, the diagnosis of a nasal allergy consists of the diagnosis of the allergic state, as well as the diagnosis of the specific causes. Here, again, the most important of all diagnostic procedures is a detailed and chronological history, not only to differentiate the symptoms of an allergic state from simulating conditions, but a history may suggest certain etiologic factors that can be proved clinically.

The physical examination of the nasal mucous membranes is of utmost importance and the allergic mucosa is characterized by varying degrees of palor, boggianness and edema or polyposis. In some instances it may be normal in its appearance or slightly reddened. In those severe instances, the excessive edema and pressure of the mucous membranes results in a characteristic bluish-gray colored turbinate which is swollen, and complete blocking of the nasal passage may be observed. Usually a varied amount of clear watery mucus is present in the uncomplicated case; however, with the presence of a chronic infection, the nose and paranasal sinuses present no such picture. In such instances, the mucous membrane is usually red and inflamed and a purulent yellow pus is often present in the nasal cavity. Here, again, the material may be cytologically studied and the high percentage of polymorphonuclear leukocytes is indicative of infection. Particularly in children, marked swelling of the nasal mucous membranes and severe pressure may be sufficient to cause a definite bulging on both sides of the nose. In those chronic instances, these children are said to have "allergic facies". It is not unusual to note a transverse wrinkle about 1/2 inch above the tip of the nose in children and occasionally in adults, which may be caused by rubbing the nose upward and has been termed "the allergic salute", as it is rather characteristic.

On X-ray, when the sinuses show various degrees

of cloudiness as well as cloudiness on transillumination, then more often than not the diagnosis is an allergic condition. Repeated X-rays may show changes that may be transitory and of short duration. When this cloudiness is unilateral or one sinus is involved, then infection is most likely to be present. At times, it is necessary to irrigate an antrum or sinus to differentiate between a marked allergy and a super-imposed infection *per se*. Here, again, rhinologic findings should always be correlated with a cytologic and bacteriologic study whenever there is a doubt in the diagnosis.

The treatment may be summarized primarily as preventive treatment in controlling or avoidance of the common substances which are known to be a predisposing factor to an allergic individual. Inhalants, particularly, should be removed from the patient's environment insofar as consistent with good judgment and practicability. Foods should be temporarily restricted from the diet, some of which may be staple foods, only for temporary periods, and added in the diet individually and retained in the diet unless they can be definitely incriminated. Symptomatic treatment is discouraged as far as local therapy is concerned, and it is profitable to use oral antihistaminics, and to the face dry or moist heat. The patient should be familiar with the various drugs that offer temporary relief, and should be familiarized with the effects to be expected, as well as the amount of drug that will give him maximum relief with a minimal discomfort from side effects. He should further be taught that most any drug may cause allergic symptoms and that when new drugs are employed, this should always be kept in mind. Surgical intervention should be employed when pathological changes result in chronic mechanical obstruction, such as polyps and fibrosed hyperplastic tissue changes. In other words, surgery should be performed if normal nasal function is to be restored. Always keep in mind that surgical intervention should be cautious and that complications of severe asthma are not by any means infrequent in certain instances.

HAY FEVER

The most characteristic feature of hay fever is its periodic recurrence and characterized by symptoms of sneezing paroxysms, nasal obstruction, discharge, itching and burning of the eyes with lachrimation, itching of the roof of the mouth, pharynx, cough, headache, edema of the larynx, numerous systemic and cutaneous manifestations and asthma. The three seasons of hay fever roughly correspond to the tree

pollinating season from January through April, the grasses from May to the middle of July and the weeds from August until the first frost. The clinical symptoms will be worse when the pollen counts are high and when the air is dry and windy. Seasons vary from year to year depending upon the amount of pollen present. Often asthma and hay fever occur together and the hay fever may be overlooked unless its seasonal characteristic is noted. A specific diagnosis consists of making skin tests to detect those pollens to which the patient is sensitive. The choice of methods of skin testing depends upon the experiences of the examiner. Scratch testing will often show the offending pollen, intracutaneous testing will show the pollen in less sensitive patients, and by the use of different dilutions of pollen extract will give the degree of sensitivity of the patient, thus helping determine the dosage and treatment. Ophthalmic tests are made with high dilutions of liquid pollen extracts, or with dry pollens placed in the conjunctival sac. This test should be used only to confirm a questionable sensitivity when other skin tests seem doubtful.

Treatment should be specific with a specific pollen corresponding with a positive reaction and symptoms corresponding with his season. Pollen mixtures may be used, including the principal pollens to which the individual is sensitive, but at all times should be kept as simple as possible. Generally, there are three dilutions of pollen used, the strongest dilution being one hundred times the weakest. The method more generally employed is dilutions based on weight volume. Serial dilutions of a pollen extract must be determined by the degree of sensitivity of the patient to the pollen. There are three methods of treatments as related to time. The preferable, or prophylactic or preseasonal method should be started at least a period of eight or more weeks in advance to the season. In working out dosage schedules, the most dilute extract should be used first and in computing the individual treatments, one should never more than double the previous dose in an accelerated schedule. The maximum dose that a patient can tolerate should be reached before the onset of the hay fever season and a further increase of dosage should not be attempted after the onset of the season. There is a marked individual difference in patients' ability to tolerate pollen injections, and care and judgment should be exercised when doses are increased; therefore, one should start far in advance of the season and allow more time to reach the maximum dosage. The dosage should be spaced three to seven days apart. Reactions may occur if

the interval is too short or if it is excessively lengthened.

The second method of treatment is phylatic or co-seasonal. This is when the patient comes in the first time during a seasonal attack. The dosages then are very dilute, must be closely spaced, and may be given daily with increasing amounts. A maintenance dosage or optimum dosage of co-seasonal treatment is that amount that will offer the patient relief without flaring up his hay fever. Frequently, it is desirable to give adrenalin along with co-seasonal treatments.

The third method of treatment is the perennial or annual method in which the patient receives injections every week or two weeks throughout the year, in addition to the pre-seasonal build-up—in other words, the maintenance dosage. It is very effective if the patient keeps interested and perennial therapy is the most practical treatment for ragweed hay fever. Certain pertinent factors regarding pollen treatments are that the patient should receive them in the upper arm sufficiently low that a tourniquet may be used if necessary. The injections should be made rather superficially so that the effects may be watched. Patients should remain under observation 1/2 hour after injections in order to observe and treat any constitutional reactions.

Constitutional Reactions usually develop within 15 minutes after injection, characterized by itching of the palms, scalp, sneezing, coughing, wheezing, urticaria and edema. Asthma may occur in very sensitive patients and fatalities have occurred. The sooner the reaction occurs after injection, the more severe and the more serious are the symptoms. These reactions may follow too large a dosage, too short an interval, an error in dosage or dilution, changing from an old extract to a new extract, too large a dosage along with too high a pollen count at the time of injection. Treatment for constitutional reactions include the use of a tourniquet, injection of adrenalin into the pollen site, as well as into the opposite arm, oxygen for cyanosis. Palliative and symptomatic treatment include the use of antihistamine drugs by mouth, dark glasses, conjunctival irrigations with a solution containing boric acid, adrenalin, distilled water, in which cocaine may be added for pain relief if no sensitivity exists.

TONSILS IN ALLERGICS

According to Clein,⁵ there are approximately two million operations for the removal of tonsils and adenoids each year which comprise approximately one-third of the total of all types of surgical inter-

vention. He further states that a mother may say, "My child has one cold after another". This is such a frequent complaint that it may be the major reason why many children are subjected to tonsillectomy. Clein's criteria for a tonsillectomy include the following list of symptoms:

1. Repeated tonsillitis, usually with fever.
2. Cervical adenitis following sore throat.
3. Otitis media, acute, chronic or recurrent, secondary to infections of the upper respiratory tract.
4. Systemic infections and/or poor nutrition resulting from repeated attacks of tonsillitis.
5. Nasal obstruction and mouth breathing from obstructive adenoids (often associated with impaired hearing and facial asymmetry).
6. Abscess of the pharynx, tumors or injuries to the tonsils, and fetor oris from debris in the crypts of these structures.

In many of those patients who do not respond to tonsillectomy, the unsuccessful cases may be explained on a basis other than infection. The failure to recognize, prior to tonsillectomy, or failure to treat allergies which are often largely responsible (more than any other reason) for the poor results following tonsil and adenoid surgery, and the nasal and perennial symptoms attributable to allergic diseases, do not seem to be relieved by surgical intervention. Kaiser⁶ reported in a ten year study of 4,400 children having tonsillectomies and adenoidectomies that 50 per cent of the children were improved in general health and normal growth and development were favorably influenced, and that those children who were not benefited were those who were suffering from some sort of allergy. Clein⁵ further stated that in a twenty year study among allergic children whose allergy was undiagnosed or untreated, 30 per cent had lymphoid re-growths in their tonsil fossa or pharynx following adequate tonsillectomy and adenoidectomy, as compared with a 3 per cent recurrence in non-allergic tonsillectomized children. He emphasized the importance of treating the allergic symptoms first before good results can be expected in this group of children. The operation for the removal of tonsils and adenoids should be performed for adequate indications on any child when his physician feels the child will be benefited by this procedure, but it is necessary that symptoms of allergic etiology should not be overlooked, as a correct diagnosis regarding the allergic factor will often prevent the operation as well as certain common complications.

Allergic Otitis Externa is characterized by heperemia, inflammatory reaction, edema and, in severe cases, vesiculation. In the chronic types, eczematoid changes are found to occur. One observes in allergic otitis externa that this condition is due to the effect of some irritant or allergen to which the patient is specifically hypersensitive. There are two exudated or serous types of eczematoid dermatitis due to allergy which may be classed as acute types, while the long standing and more chronic types show some thickening, scaling of the skin and are prone to recur. This latter chronic type may be referred to as squamous or hyper-keratotic eczema. The more common etiologic factors include fur trimmings about the neck, feather pillows, danders, cosmetics including creams, powders and the like. When these exposures are intermittent to certain irritants, one frequently sees puzzling otitis externa of varying severity, and the characteristics may change depending upon exposure, duration and management. One also observes an industrial factor, particularly chemical fumes in the air, insecticides including D.D.T., to the extent that one might observe an urticarial type of reaction with complete blocking of the ear canal. This may also result from exposure to large amounts of pollen.

Further classifications of allergic otitis externa of the eczematoid type are:

1. Exudative, sometimes called serous eczema.
2. Non-exudative, called squamous or hyper-keratotic eczema or dermatitis medicamentosa, allergic dermatitis, etc.

It is not infrequent for the eczematoid lesions to disappear with proper dietary changes, and many chronic cases may follow the ingestion of simple foods such as eggs, chocolate, wheat and the like, and, with their restriction, their symptoms may be controlled and reproduced by exposure to or ingestion of certain foods.

One also may observe that fungus infections may be related to otitis externa with a secondary bacterial invasion depending upon the stage of involvement, according to Sutton in the 1949 "Current Therapy", and he termed this as otomycosis.

The theme of therapy should be one of simplicity, recognizing that too vigorous a therapy might produce exacerbations of symptoms and sensitize the individual to a particular drug. One should, if possible, eliminate the irritant whether it be drug, inhalant, food, pollen, chemical, plastic, foreign body, etc. Extreme care should be exercised in the choice of any local applications. Exacerbations are

not too infrequent in my practice secondary to local antihistamines. Previous patch test with various medicaments is warranted. Considering antibiotics, penicillin and sulfonamides are usually contraindicated; however, streptomycin and aureomycin in my experience are frequently tolerated. The use of Burrow's solution, saline, boric acid, as well as hydrogen peroxide may prove beneficial, but the theme is the treatment of the co-existing allergic manifestations with hyposensitization, autogenous vaccine, local therapy to the epidermatophytosis, etc.

MENIERE'S SYNDROME

It was in 1861 that the first description of the triad of symptoms, vertigo, tinnitus and deafness were first described by Meniere,⁷ and is now generally known as Meniere's symptom complex. There have been a number of attempts of various observers to explain the basis of this syndrome. As early as 1883, Woakes⁸ suggested increased intralabyrinthine tension as the cause of the symptoms. Cheatle⁹ suggested the possibility of an increased tension of endolymph or perilymph as the cause of the symptoms, and he felt that this might be the result of excessive secretion or obstruction to overflow. Ferreri and Aboulker¹⁰ and Hartsook¹¹ also expressed the opinion that increased intralabyrinthine pressure was the cause of the symptoms.

The first consideration of an allergic etiology was reported by Duke in 1923, at which time he found that the symptoms were relieved by the avoidance of certain foods and the use of epinephrine. A disturbed water metabolism as an etiological factor was suggested by Dederding.¹² Other workers who cited allergy as an etiology included Dean, Agar and Linton¹³ and also Proetz,¹⁴ and the latter reported a case of definite sensitivity to milk and its products. The theory of retention of electrolytes, chiefly sodium, and not the accumulation of water alone as a cause of this syndrome was advanced in 1934 by Furstenberg, Lashmet and Lathrop,¹⁵ and Crowe stated that "chemical, circulatory or pressure changes in the endolymph could produce the auditory symptoms by irritation or injury to the cells of the organ of Corti; and the vestibular symptoms by a cumulative effect on the organs of the vestibular nerves". The pathological findings in two cases of Meniere's syndrome was reported by Hallpike and Cairns¹⁶ and the third case in the following year, 1939, by Hallpike and Wright,¹⁷ and since that time up until 1946, thirteen additional cases were summarized by Altmann and Fowler.¹⁸ No sign of information was present in any of the cases reported, and all cases

demonstrated a marked dilatation of the endolymph system, which indicated an increased endolymph pressure. At the present time, there is considerable lack of unanimity regarding the cause and treatment of Meniere's symptom complex according to Horton.¹⁹ Kuhn²⁰ again emphasized the great difficulty in sharply dividing and classifying the symptoms referred to as Meniere's Syndrome as they vary from vertigo, without deafness and tinnitus (even of the mild type of vertigo brought on by sudden changes of position) up through tinnitus and vertigo, nausea and vomiting with or without loss of hearing. There is considerable evidence that will justify the classification of Meniere's Syndrome as an allergy as it frequently involves other structures of the head by accompanying myalgias and neuralgias. Pathological findings showing dilatation of the endolymphatic system are seen in many cases. One also notes degenerative changes being present in the centric elements of the inner ear and showing no inflammatory changes. The rather characteristic "endolymphatic hydrops", which is the non-inflammatory extra-cellular edema fluctuating in symptoms and is quite constant with an allergic etiology. When one attempts to explain these symptoms without an allergic background of etiology, the explanation is not only quite difficult but a satisfactory explanation of the pathological picture is confusing. Although one may observe these symptoms in younger individuals, it is more frequently seen about the third decade or more in middle life. Vertigo may be the first symptom; however, one may note tinnitus and a deafness that is frequently quite profounded and quick in its onset and the hearing dropping to a loss of as much as 40 decibels in a few minutes. This deafness involves not only the lower frequencies but it is usually progressive and actually involves all frequencies for both air and bone conduction. It may be bilateral or unilateral as far as the involvement of the ear and it may be progressive in the beginning with no vertigo and may follow with tinnitus and deafness which is rather typical. The treatment that has in many instances alleviated the symptoms is that as outlined by Horton, consisting of intravenous histamine, using 2.75 milligrams in normal saline approximately 1/2 liter in amount, given sufficiently rapidly to produce a frank flushing of the skin. Initially these infusions are given daily, subsequently three times a week, twice a week, and maybe continued for periods up to three or six months on weekly dosages after switching over to the subcutaneous histamine therapy. It is the general consensus that the medical management of Meniere's

Syndrome is preferable to the surgical treatment according to Horton, who has treated approximately 5000 patients with the Meniere's symptom complex since 1939. He further emphasized the importance of prompt therapy during the acute attacks as a preventive measure of loss of hearing. He further indicates that of this group of patients so treated, approximately 70 per cent were relieved of the vertigo and approximately 50 per cent have reported some improvement of the hearing loss and decrease of tinnitus.

It has been appreciated for some years that there is a definite correlation of impairment of hearing, particularly in children and middle age persons, that is influenced by the correction of clinically evident allergies. Many of these patients who have frank allergic manifestations such as perennial allergic rhinitis, bronchitis and asthma often are found to have some varying degrees of impairment of hearing which may be more prominent during periods of exacerbations of their allergic manifestations. This type of allergic hearing loss is frequently observed to be of the combined lesion type involving both high and low frequencies, but often one observes high frequencies, only which may at times have to be differentiated from a so-called nerve deafness. Crisp²¹ stated, "The pathologic physiology allergy of the ears is in all likelihood an edema, and the symptoms depend on which structures are involved in the process".

One may observe that the so-called "adrenalin test" is of value in excluding an allergic etiology in hearing defects. Kuhn, who has participated in a number of the post-graduate courses, put on by The American College of Allergists, records that the following symptoms are noted in ear allergies:

1. Fullness of one or both ears.
2. Loss of hearing or dullness of hearing.
3. Deep, dull pain in ear.
4. Itching in back of nose—between the nose and ear.
5. Tinnitus, vertigo and nausea.
6. Tightness or drawing in the ear.
7. Burning in the ear.

It is well in these cases to endeavor to establish an etiologic diagnosis and the adrenalin test is found to be of value. One usually has an audiogram done initially, and, after hypodermic injections of adrenalin, some 20 minutes later, the audiogram is repeated. In those individuals who appreciated improvement of hearing in the second audiogram, then an allergy investigation is worthy of consideration. In those individuals in which the eustachian tubes are in-

volved accompanying a nasal allergy, edema of the mucous membranes or a plug of mucus may cause this blockage and can be blown out of the tube by inflations. Frequently the plugs of mucus are found to contain eosinophiles. In many of these patients who have felt a frank nasal allergy with symptoms of impaired hearing, a careful allergy survey and management for same is the program of choice, not only for the rhinitis but as a therapy directed to improve these periods of intrinsic hearing loss.

ANGIONEUROTIC EDEMA OF ORAL MUCOSA AND LARYNX

Over a period of years we have had under observation a number of patients with varying degrees of angioneurotic edema involving the oral mucous membranes as well as the larynx. These patients have at times been able to definitely identify the allergen or causative agents which have included foods, drugs, inhalants, pollens, as well as foci of infection. There have been deaths reported from angioneurotic edema of the larynx, and at times it is necessary in these severe cases to perform a tracheotomy as a life-saving measure.

The treatment of angioneurotic edema of the oral mucous membranes and the larynx is usually considered as emergency treatment, and in the acute phases one must immediately consider the following:

1. Hypodermically, Epinephrine, 1/1000 in dosages of 0.2 to 0.5 cc. in multiple locations; intervals between injections dependent upon the seriousness of the reaction.
2. Epinephrine 1/1,000, on a large cotton applicator and mopping out the soft palate and adjacent throat areas.
3. Infusion containing 1,000 c.c. of 5% glucose in water containing epinephrine, 1/1,000, 10 c.c.
4. Epinephrine, 1/100, using a DeVilbiss nebulizer #40.
5. Intravenous infusion containing glucose, 5% in water containing ACTH, 30 units, 28 drops per minute and this same type of infusion may be continued over a period up to 48 hours or possibly longer.
6. Acthar-Gel, 80 units, stat., intramuscular; and 40 units b.i.d. for periods of 48 to 72 hours or longer depending upon the severity of distress.
7. Prednisone (Metacortin) or Prednisolone (Sterane, Metacortelone).
8. Oral preparations containing Ephedrine or

Racephedrine in dosages of 3/8 to 3/4 grains q. 4 hours p.r.n.

9. Dietary and drug restrictions or avoidance.
10. Hyposensitization with varied allergen mixtures and autogenous vaccines.
11. Excision of foci of infection.
12. Antibiotic therapy in combating bacterial component, preferably based on sensitivity studies if culture is obtained.

SUMMARY

An attempt has been made to correlate the varied allergic involvements of the nose, throat and ear, bringing out the salient features of the involved areas as regards symptoms, diagnosis and therapy, not only in the perennial cases but in those patients exhibiting seasonal manifestations only as seen in hay fever. The point is emphasized that only by a close cooperation or united effort on the part of the allergist and otolaryngologist are these patients able to appreciate or achieve a frank improvement or control of their symptoms. In other words, these patients should be handled by a combined management.

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Prednisone Used For Allergies, Anemia

Two Chicago physicians have reported further evidence that prednisone is valuable in treating allergic diseases, and two New York physicians said in a preliminary report that it may be useful for anemia. The reports on the synthetic hormone, which is related to cortisone, appear in the January 28 *Journal of the American Medical Association*.

Drs. Alan R. and Samuel M. Feinberg, of the allergy clinic and allergy research laboratory, Northwestern University Medical School, Chicago, compared the effectiveness of prednisone and cortisone in 80 patients with allergy diseases. They found that prednisone was five time more potent than cortisone, meaning that smaller doses of prednisone are necessary to obtain and maintain the same results as cortisone. Prednisone's side effects were about the same as those of cortisone, except that generally they did not upset the body's salt and water balance.

Of 50 patients with perennial chronic asthma, 41 obtained complete or nearly complete relief with prednisone. Satisfactory results also were obtained

in 10 patients with seasonal asthma due to pollen or mold allergy, and in 27 of 32 patients with asthma and seasonal allergic rhinitis (inflammation of the mucous membrane of the nose).

Other types of allergy successfully treated were perennial allergic rhinitis, allergic eczema, serum sickness reaction from penicillin, and chronic hives.

Drs. Leon N. Sussman and Jack R. Dordick of the medical service and hematology laboratory of Beth Israel Hospital, New York, used the hormone for three cases of acquired hemolytic anemia, in which red blood cells are destroyed by some agent in the blood. The exact cause of the disease is unknown.

Treatment included the standard methods, cortisone, and prednisone. Prednisone in "relatively small" doses satisfactorily alleviated the anemia, without the appearance of any undesirable side effects.

The effectiveness of the hormone in this small series makes its further study essential.

Rupture of the Normal and Diseased Spleen

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RUPTURE of a normal or diseased spleen constitutes an acute surgical emergency. It is *acute* because, of those that die, 50% die within one hour after rupture. There is little question as to the necessity of *surgical* intervention. In reviewing the literature, mortality without surgery approximates 90%.^{13,8} The largest series of patients (220) with ruptured spleen who were unoperated was published by Berger in 1902.³ Mortality in this series was 92.3%. By comparison, absolute mortality with surgery approximates 30%.

Rupture of the spleen is one of the most common of all non-perforating intra-abdominal injuries.^{8,23 2,14} The severity of the initial injury may be so minimal that the patient fails to note or remember it. It is only with the onset of signs and symptoms secondary to delayed hemorrhage that the question of any initial trauma ever arises. It is in such patients that the clinician makes the diagnosis of "spontaneous" rupture of the normal spleen. We feel, as does Harkins, that no such entity exists and that minimal trauma to a spleen predisposed to rupture has occurred, either because of some anatomic abnormality or unrecognized pathology.¹³ On the other hand, the initial injury may be severe. Rupture of the spleen may be associated with left hypochondrium ecchymosis, fractured ribs with or without pleural and pulmonary complications and rupture of other abdominal viscera.

The most common etiological trauma in a ruptured spleen is the automobile accident.^{8,1} Splenic bleeding must *always* be considered in any accident victim. It is sometimes easily overlooked because of the associated and more obvious evidence of external trauma. A very common cause of splenic rupture in children is sledding.¹ Beware of the child who complains of left shoulder pain after performing that intricate maneuver known in sledding circles as "belly-wopping". Evidence of external injury in children is infrequent. In a careful review of the literature and cases at Madigan Army Hospital, Fitzsimons Army

Hospital, Norfolk General Hospital and Norfolk Community Hospital, the causes of splenic rupture in order of frequency are: (1) automobile and plane accidents; (2) falls and direct blows; (3) sledding accidents.

To the surgeon who must make a decision for or against surgery the establishment of a diagnosis may be extremely difficult. This is due to one factor above all others, that is, the capacity of the spleen to rupture from any time immediately after the initial injury to many weeks later. The actual incident of delayed rupture varies between 10 and 20%.^{13,8,1} Of these delayed ruptures, 75% occur within two weeks after the initial injury. This ability of the spleen to bleed long after initial injury depends on many factors. The spleen is covered beneath its serosa by white and yellow elastic fibers and smooth muscle.¹² This anatomic characteristic allows the spleen in its pathological splenomegalies to enlarge progressively to fantastic sizes. Also by virtue of this fact a subcapsular hematoma of the spleen may reach tremendous proportions before rupturing. This may take anywhere from a few days to weeks. Splenic bleeding from capsular tears or even hilar tears may be temporarily inhibited by numerous actual and potential intra-ligamentous spaces and by omental tamponade.

When the *possibility* of splenic bleeding is present or complete rupture is impending, we feel an exploratory laparotomy is indicated. This conclusion has been based on a careful statistical analysis of the literature and our personal experience. In only 30% of abdominal and left chest injuries can a definite diagnosis of splenic bleeding be made. The majority of patients present a diagnostic problem. The mortality in surgery done for completely ruptured spleens with hemorrhage and shock is 12 times greater than the mortality in surgery done for tamponaded capsular or hilar tears or for enlarging subcapsular hematomas. The actual mortality of the unoperated ruptured spleen is 180 times greater than the mortality of exploratory laparotomy *per se*. Once the possibility of splenic bleeding has been seriously considered and adequate facilities are available, do not allow the patient to undergo further observation. Delay invites disaster.

Written while in service at Madigan Army Hospital, Tacoma, Washington; Fitzsimons Army Hospital, Denver, Colorado; 35th Station Hospital, Kyoto, Japan, and from the Services of Norfolk General Hospital and Norfolk Community Hospital, Norfolk, Virginia.

Presented at the annual meeting of The Medical Society of Virginia, in Richmond, Virginia, October 17, 1955.

For the clinician who remembers the high incidence of ruptured spleens in abdominal trauma and the capacity of the spleen to delay its rupture, a diagnosis is made easier. There is usually a history of trauma followed by the onset of generalized abdominal pain, characterized as aching or colicky and localizing sooner or later to the left hypochondrium. A review of the literature for the last 50 years and our own cases reveals that in 40% of splenic rupture, left shoulder pain was present from irritation of the central portion of the left diaphragm.^{13,8,1,11,30,5,23,2,25,36} At this point it is important to remember that irritation of the periphery of the diaphragm causes referred pain in the left hemithorax from the 6th rib down and in the left hypochondrium. Accordingly, reference of pain will depend upon which portion of the diaphragm is stimulated either by an enlarging spleen or by blood. Another important clue in localizing the intra-abdominal pathology is accentuation of pain on inspiration. A sense of abdominal fullness is a more common finding than nausea or vomiting. In addition, those symptoms and signs associated with hemorrhage and shock may be present. There may be pallor, diaphoresis, weakness, vertigo, and syncope. Examination of the patient may reveal a rapid and thready pulse with at first a rising compensation blood pressure followed by a fall to shock level. The temperature is often slightly elevated as are respirations. The most common finding on abdominal examination is left upper quadrant tenderness with or without spasticity and rebound.

Laboratory data generally reveals an elevated white count, an elevated hematocrit early and a low hematocrit later. We consider a falling hematocrit a very important aid in diagnosis.

There are a number of laboratory procedures which, in addition to the clinical findings, help a great deal in making a diagnosis of splenic hematoma and rupture. X-ray of the abdomen may exhibit one or more of the following characteristics: (1) Obliteration of the splenic shadow; (2) A jagged serrated saw tooth greater curvature; (3) Reflex gastric dilatation; (4) Tenting of the left leaf of the diaphragm with or without fixation; (5) Displacement of the stomach to the right, left kidney inferiorly and depression of the left colon (Fig. 2).

There are a number of additional laboratory procedures available which may help in making the diagnosis. Their use is not widespread and is controversial. Included in this group are abdominal paracentesis, peritoneoscopy and colposcopy in the female. We feel that these are excellent procedures and are of value in determining the presence of

intra-abdominal bleeding. Although negative findings cannot be considered significant, positive findings in these procedures may be the answer to the diagnosis and are the answer to treatment.

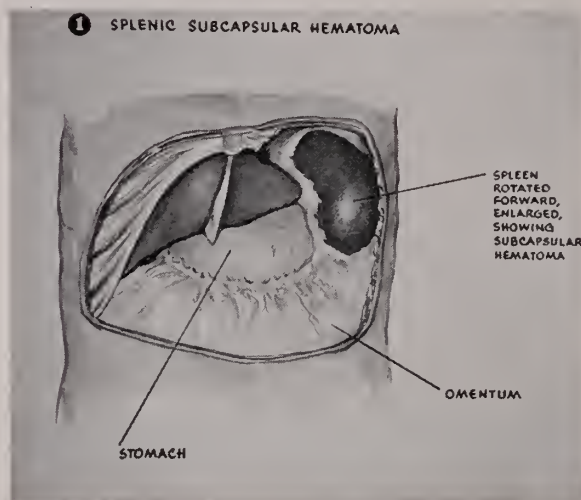


Fig. 1. Case #4.—Large subcapsular splenic hematoma.

CASE #1. DELAYED RUPTURE WITH SEVERE HEMORRHAGE AND SHOCK

A 22 year old white male was crushed between two vehicles in Korea on 11 August 1950. He sustained a fracture of his 9th, 10th and 11th ribs on the right and a right hemothorax. He was treated successfully at that time and his injuries healed. He was then transferred to the Zone of the Interior and admitted to Fitzsimons Army Hospital on 26 September 1950. On 27 September 1950 the patient experienced sharp, left upper quadrant pain. Left upper quadrant dullness was noted at this time. Clinically and by laboratory he went into severe hemorrhagic shock. An exploratory laparotomy was done. The abdomen was filled with fresh blood, numerous old perisplenic adhesions were present. There was active bleeding in the hilar region. Splenectomy was done. Additional findings at surgery included a traumatic pseudocyst of his pancreas and omental necrosis. Patient's postoperative course was complicated by pancreatic fistula which closed spontaneously. This patient illustrated the following points:

- (1) Delayed hemorrhage from traumatic splenic rupture (47 days).
- (2) The presence of associated and more obvious chest trauma which occurred, surprisingly enough, on the right rather than on the left.
- (3) The presence of additional, unrecognized, intra-abdominal trauma.

CASE # 2. SPLENIC FRAGMENTATION WITH BLEEDING INTO THE GASTRO-SPLENIC AND LIENO-RENAL LIGAMENTS WITH TAMPONADE

L. M., a 22 year old white male, was admitted to Madigan Army Hospital following an automobile accident. He complained of pain in his left lower chest and left upper abdomen. Physical examination revealed normal vital signs. There were decreased breath sounds over the entire left inferior chest with an hyperresonant, almost tympanitic percussion note. There was minimal left upper quadrant abdominal tenderness and spasm. The remainder of the physical examination was negative. The laboratory data: two white counts were 16,000 and 21,000 with a



Fig. 2.—Note the downward displacement of the left kidney and splenic flexure from the enlarged splenic hematoma.

shift to the left Hematocrit was normal and the urine showed gross and microscopic hematuria. X-ray revealed fractures of the 7th, 8th, 9th and 10th ribs at both the posterior and anterior axillary line and at the transverse processes. A hemopneumothorax was present with a tracheal shift to the right. There was questionable herniation of the stomach into the left hemithorax (Fig. 5). Excretory urograms were within normal limits. Impression on admission was: (1) Hemopneumothorax, left. (2) Flail chest, left, with "closed" pneumothorax. (3) Contusions of the left kidney. (4) Possible rupture of the left diaphragm and spleen.

The patient's clinical picture rapidly and progres-

③ LACERATED SPLEEN AND SPLENIC VEIN AFTER REMOVAL

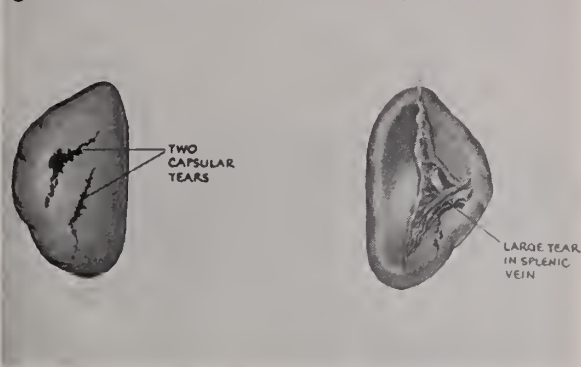


Fig. 3, Case #3.—Showing capsular tears and splenic vein tear after removal of spleen.

sively worsened with the onset of cyanosis and dysnea. An exploratory thoracotomy was done resecting the 9th rib postero-laterally. A large rent was noted in the anterior portion of the diaphragm. The left chest was partially filled with stomach. The left lower lobe was atelectatic. The spleen was markedly fragmented with pieces lying free in the pleural space (Fig. 4). On examination of the splenic pedicle it was noted that blood had extravasated into the gastro-splenic and lieno-renal ligament. This extravasation had tamponaded the splenic artery, vein and left gastro-epiploic and short gastric vessels. There was minimal oozing but no active bleeding from the spleen or pedicle. Splenectomy was

④ FRAGMENTATION OF THE SPLEEN WITH RUPTURED DIAPHRAGM

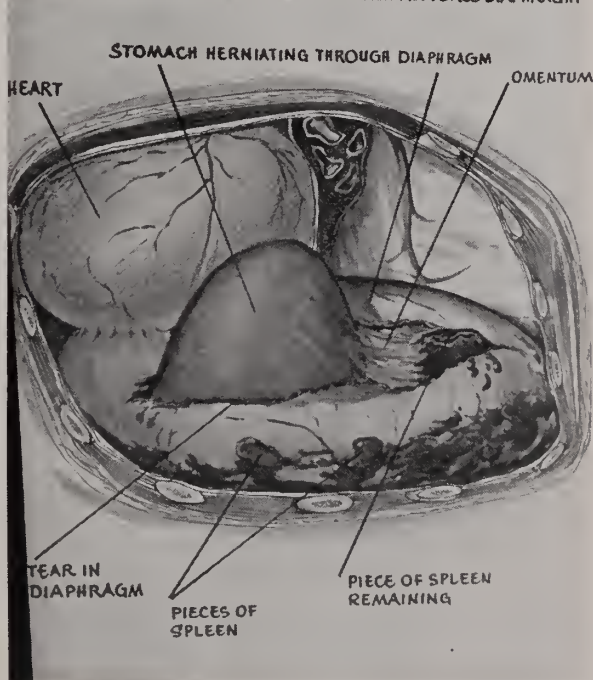


Fig. 4.—Ruptured diaphragm and spleen with fragmentation of the latter.

done, the abdominal contents reduced through the diaphragm, the diaphragm repaired and the 7th and 8th rib fractures were wired. Patient's postoperative course was complicated only by the accumulation of some loculated serosanguineous fluid. This was treated



Fig. 5.—The opacity at the left base represents stomach which had herniated through the diaphragm.

by, and responded to, multiple thoracenteses. (Fig. 6). Patient was discharged to full military duty.

A review of this case illustrates the following points:

- (1) The patient severely fractured his spleen, with temporary tamponade by extravasation of blood into both the gastro-splenic and lieno-renal ligaments.
- (2) Severe associated pulmonary and pleural injuries were present.
- (3) Surgery was done soon after admission without a definite diagnosis of ruptured spleen. There were other indications for operative intervention. Although the patient did well, there was an unnecessary delay of six hours prior to surgery.

CASE #3. DELAYED RUPTURE AND BLEEDING OF THE SPLEEN FROM CAPSULAR TEARS WITH OMENTAL TAMPONADE

J. L., a 23 year old white male, was injured in an airplane accident and admitted to Madigan Army Hospital on 14 April 1953. The author had a chance to observe the patient from the site of evacu-

ation to Madigan Army Hospital and during his period of observation while at Madigan Army Hospital. At the plane wreckage the patient complained only of abdominal pain and had minimal upper abdominal tenderness on admission to Madigan. Physical examination revealed multiple superficial face lacerations and body abrasions and contusions. The left lower chest was slightly tender to percussion. There was minimal bilateral upper abdominal spasticity and tenderness. Chest X-rays were consistent with only a right lower lobe bronchopneumonia and a moderate compression fracture of the body of D9. Flat plate of the abdomen was negative. White count was 20,000 with 85% polys. Patient's hematocrit was 37. Initial diagnosis was right lower lobe bronchopneumonia and compression fracture of D9. A possible splenic tear was considered but not seriously.

Hospital Course: The patient was placed on bed-rest and close observation. On the 5th hospital day patient developed syncope, moderate upper abdominal pain, most marked on the left and for the first time left shoulder pain increasing on inspiration. Hematocrit had dropped from an *initial* 37 to 28. A diagnosis of delayed splenic rupture was made. An exploration was done through a thoraco-abdominal incision. The entire abdomen was filled with old clotted and fresh blood. The omentum was wrapped



Fig. 6.—Post-operative X-ray of Case #2 prior to return to full duty.

around the spleen. After freeing this, it was noted that the splenic capsule had two 4 cm. tears (Fig. 3) No other pathology was noted. A splenectomy was done. The patient's postoperative course was uncomplicated. He was transferred to the Orthopedic Service for additional treatment of his D9 compression fracture.

Patient illustrates the following important points:

- (1) An early suggestion of possible splenic bleeding based on:
 - a. Upper abdominal pain and tenderness over the left thoracic rib case.
 - b. A rather low initial hematocrit which was out of proportion to that which one could expect from the patient's external injuries.
- (2) Delayed moderate splenic oozing with clinical evidence of mild shock and a falling hematocrit.

CASE # 4. SPLENIC SUBCAPSULAR HEMATOMA

J. R., a 20 year old male, was admitted to the Orthopedic Section, Madigan Army Hospital on the 27th of July 1952 with a diagnosis of fracture, simple, of the carpal scaphoid, following an automobile accident. Physical examination revealed multiple abrasions and contusions plus the previously mentioned fracture. No other findings were present on admission.

During this patient's hospital course a daily temperature elevation to 100-101 degrees was noted during the second hospital week. A tender palpable spleen was noted for the first time. No other abdominal findings were present and all additional laboratory data were well within normal limits. The patient was seen by the author and a diagnosis of subcapsular splenic hematoma made. He was transferred to the general surgical section, and on the patient's 40th hospital day an exploratory thoracolaparotomy was done.

Numerous peri-splenic adhesions were present. There was a ten centimeter in diameter subcapsular splenic hematoma on the anterior and lateral surface of the spleen (Fig. 1). The spleen was enlarged to 3 times normal size. A splenectomy was done. The patient's postoperative course was complicated by:

- (1) Hemorrhage from the under surface of the diaphragm which required surgical intervention.
- (2) By a retro-gastric abscess which spontaneously drained into the stomach during exploratory surgery for a left subphrenic abscess.

Four months after splenectomy the patient was dis-

charged to duty. This case history illustrates the following points:

- (1) Unnecessary delay (3 weeks) in performing surgery, after a definite diagnosis of splenic hematoma had been made.
- (2) Two of the most common complications following splenectomy.

RUPTURE OF THE DISEASED SPLEEN

A syndrome which is being diagnosed with increasing frequency today is the rupture of the diseased spleen. Splenic rupture has been associated with malaria, infectious mononucleosis, typhoid, typhus, leukemia, torsion, abscess, etc. Like the rupture of a normal spleen, the same clinical picture is present, plus those signs and symptoms associated with the basic pathology. Those patients who rupture a diseased spleen constitute as much of a surgical emergency as those who rupture a normal spleen. In addition, they are, in many instances, systemically ill individuals. Therefore, the surgical risk is greater and the mortality and morbidity higher. With as adequate a preparation as possible in the short pre-operative period (especially in those patients with an already low hemic component from malaria) immediate surgery is essential. Fellows subjected a patient with a ruptured malarial spleen to observation with almost disastrous results.¹⁰

The diseased, friable, and congested spleen which is enlarged and protruding is certainly predisposed to traumatic and "spontaneous" rupture. Hershey and Lubitz have collected and analyzed 64 cases of ruptured spleens in malaria.¹⁴ Thirty-nine patients had had induced malaria (for lues) and the remaining 25 had naturally acquired malaria. The most common offender in the production of the ruptured malarial spleen was plasmodium vivax, with falciparum second, and malariae third. It might be interesting to note that one-half of the luetics who ruptured their malarial spleen had no symptoms and died in clinically unexplained severe shock. In addition, the spleens were palpable in only a very small percentage of the cases. Differential diagnosis included fulminating and cerebral malaria, splenic abscess, and perisplenitis with infarction.

Today approximately 12 cases of ruptured spleen secondary to infectious mononucleosis have been reported in the literature.^{28,9,32,26,20,37,15,31,29} Of 44 cases of rupture of a diseased spleen on file at the Army Institute of Pathology, 22 were due to malaria and seven to infectious mononucleosis.²⁶ In a relatively benign disease such as infectious mononucleosis, where mortality is exceedingly low, the most common

cause of death is rupture of the spleen. Again, the patient presents the signs and symptoms associated with a ruptured spleen plus general malaise, lymphadenopathy, pharyngitis, atypical lymphoid cells and an elevated heterophile agglutination. Definite pathological changes are present within the spleen, such as dissolution of the capsule by infiltration of lymphocytes.²⁶ These changes which occur after the disease is established are undoubtedly the main cause for rupture of the spleen. Rupture occurs with or without trauma on an average of about two weeks after inception of the clinical signs and symptoms of infectious mononucleosis, rarely before.

King and Oppenheimer present an extremely interesting proven case of a ruptured amyloid spleen secondary to minimal trauma. Amyloidosis was of the primary type.¹⁹ Wood reports a case of infectious hepatitis and a splenitis with sub-capsule hemorrhage and rupture.³⁵ Splenitis associated with the hepatitis was undoubtedly a major predisposing factor to rupture of the spleen.

In India, 7% of all deaths are due to rupture of a malarial spleen.¹³ In the U. S., rupture of diseased spleen is rare. However, the possibility that even minimal manual palpation can break the spleen of infectious mononucleosis or malaria should be born in mind by the clinician. "Spontaneous" rupture of the spleen should be seriously considered in the patient with malaria or infectious mononucleosis who develops clinical and laboratory evidence of intra-abdominal hemorrhage. Once the diagnosis has been made, these patients constitute an acute surgical emergency.

SUMMARY

Rupture of the normal and diseased spleen is an acute surgical emergency. The pathogenesis of delayed rupture and its clinical significance are discussed in detail. Points in diagnosis have been emphasized and four patients representing the various types of splenic rupture are presented. On the basis of a review of the literature for the past 55 years and 22 cases seen in the last 7 years, exploratory laparotomy is indicated when splenic bleeding is a possibility. Adequate facilities and surgical help are an absolute necessity. Provided these requirements are met, any delay invites disaster.

My sincere appreciation is given to Col. James H. Forsee and Col. James E. Graham, without whose assistance, advice and indulgence this paper could not have been possible.

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Characterization of Certain Endocrine Syndromes by Specific Laboratory Assay

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Richmond, Virginia

ALTHOUGH in recent years considerable information has become available concerning the usefulness of laboratory procedures in the differential diagnosis of endocrine disease, the interpretation of such data is often difficult. One source of difficulty is that, as a consequence of increasing knowledge, certain tests have been discarded soon after widespread adoption, e.g., the blood eosinophile fall after the injection of epinephrine is no longer considered useful in testing pituitary function. Also, the techniques for some procedures are constantly undergoing modifications aimed at improvement, which fact in itself implies dissatisfaction with the test. Furthermore, deviations from normal values may assume changing significance as experience with a procedure increases, and as non-specific causes for such deviations become apparent. For these and other reasons it occasionally seems fortuitous if one should arrive at the correct interpretation of data in a given case.

With these thoughts in mind, some of our data are here presented concerning (1) urinary 17-ketosteroids, (2) urinary formaldehydrogenetic corticosteroids,

and (3) urinary gonadotropins, commonly called follicle-stimulating-hormone, or FSH. The techniques of these procedures as run in our laboratory have remained essentially unchanged over the last several years. Most of the patients studied were seen in the endocrine clinic and hospitals of the Medical College of Virginia, and the McGuire Veterans Administration Hospital. It is the purpose of this paper to relate each of the above mentioned tests to a few of the specific endocrinopathies where they appear to be of most value.

URINARY 17-KETOSTEROIDS

These substances are derived in the male from the adrenal cortex and the testes, and in the female only from the adrenal cortex. In young adults, normal males excrete about 8-20 mg./24 hrs., and normal females about 4-14 mg./24 hrs., the difference being due to testicular 17-ketosteroid precursors. In older people the values are somewhat lower. Normal children excrete very low quantities until about the eighth year when the prepubertal rise commences.

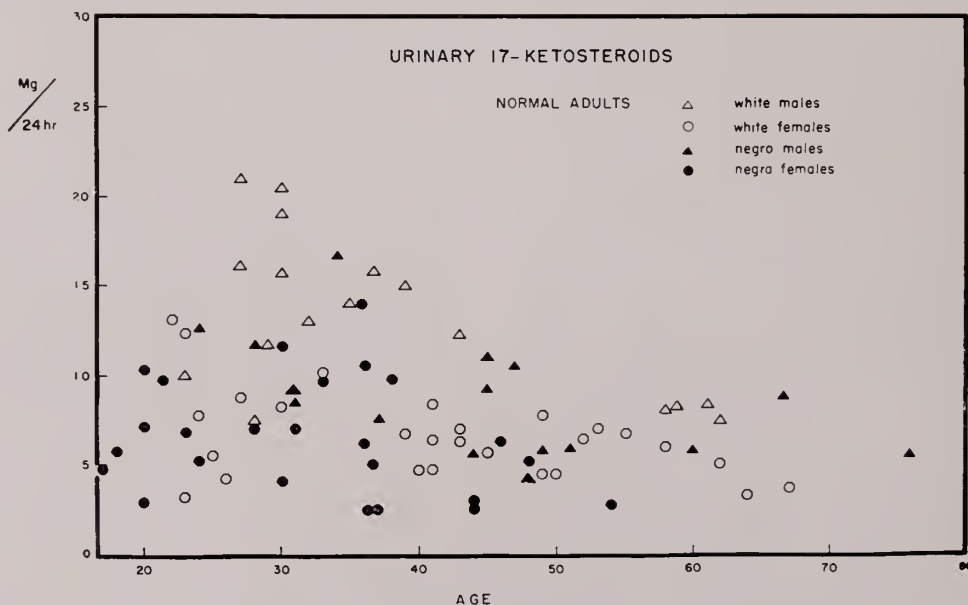


Fig. 1.—Urinary 17-ketosteroids in normal adults; 85 tests on 78 individuals.

From the Department of Medicine, Medical College of Virginia, and the Medical College of Virginia Hospitals. Presented at the Annual Meeting of The Medical Society of Virginia, Richmond, Virginia, October 18, 1955.

Values found for 17-ketosteroids in 85 tests on 78 normal adults are depicted in Fig. 1, where age is shown along the abscissa, and excretion in milli-

grams per 24 hours along the ordinate. Most values for normal adults fall within the ranges given above, although in a number of females, particularly Negroes, the values are somewhat lower.

Data on 17-ketosteroid excretion in 20 patients with Addison's disease and 13 patients with anterior pituitary failure are shown in Fig. 2. The latter condition is referred to as panhypopituitarism, and the two principal causes are pituitary tumor, and postpartum hemorrhage or shock (Sheehan's syn-

Elevated values for urinary 17-ketosteroids might be anticipated in all cases of Cushing's syndrome because of the known hyperadrenocorticism characteristic of this condition. That such an elevation does not always obtain is shown in Table 1. Here the values on six well documented cases of Cushing's syndrome are seen to be within the normal range, slightly elevated, or somewhat depressed.

On the other hand, children with hyperadrenocorticism of the adrenogenital type have notably ele-

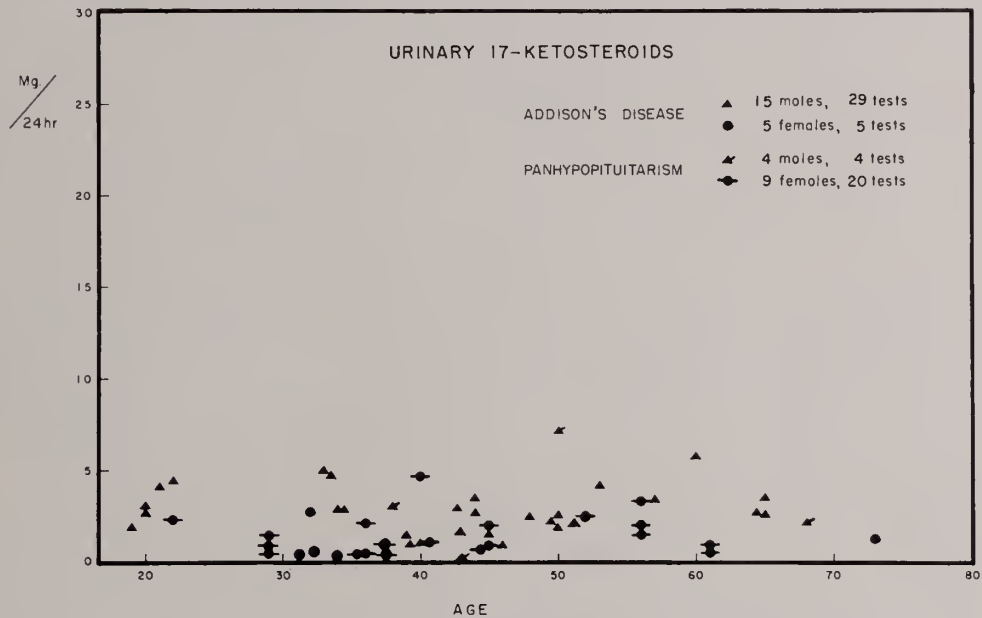


Fig. 2.—Urinary 17-ketosteroids in Addison's disease (20 cases), and panhypopituitarism (13 cases). Two or more tests were performed in many of the patients.

drome). It is apparent that 17-ketosteroid excretion is markedly diminished in Addison's disease and panhypopituitarism when compared to normal individuals. Since males with Addison's disease have hypoadrenocorticism but normally functioning testes, their 17-ketosteroid excretion is generally higher than

normal 17-ketosteroid excretion, as is shown in Table 2. Before the eighth year, excretion in normal children is usually less than 1.0 mg./24 hrs. Among other signs such children show accelerated somatic growth, early appearance of pubic hair, and advanced bone age. This syndrome has been thoroughly

TABLE 1
URINARY 17-KETOSTEROIDS IN CUSHING'S SYNDROME

CASE	SEX-AGE	MG./24 HRS.	CASE	SEX-AGE	MG./24 HRS.
T. B.	m-38	3.5	B. H.	f-30	7.9
		3.5			17.0
		4.5			16.3
		4.7			
R. F.	m-33	11.7	O. C.	f-32	2.8
					6.1
					6.2
					3.7
F. P.	m-25	11.1 24.0	G. W.	f-16	4.5
					6.5

female Addisonian's or individuals of either sex with panhypopituitarism.

studied by Wilkins¹ and is remediable by cortisone. One of these children with adrenogenital syndrome

due to congenital adrenal hyperplasia has been adequately controlled by cortisone, and followed in the endocrine clinic for a period of four years.

In summary, 17-ketosteroid excretion is characteristically low in patients with Addison's disease and panhypopituitarism, and high in children with

our laboratory normal adult values lie between 0.3 and 1.0 mg. per 24 hours, there being no sex difference. (2) In Addison's disease and panhypopituitarism the test is of little or no value since data from such cases overlap the normal range in many instances. (3) Patients with Cushing's syndrome

TABLE 2
URINARY 17-KETOSTEROIDS IN CHILDREN
WITH ADRENOGENITAL SYNDROME

CASE	SEX-AGE	Mg./24 Hrs.	CASE	SEX-AGE	Mg./24 Hrs.
T. H.	m-7 yrs.	27.4 37.6	B. R.	f-4 yrs.	3.9 10.8
S. P.	m-4 yrs.	58.2	J. R.	f-4 6/12 yrs.	4.5 7.5 10.5
L. W.	f-2 6/12 yrs.	8.4 10.4	J. J.	f-2 6/12 yrs.	4.8 3.9 4.0
J. S.	f-6 yrs.	33.4 32.7			

adrenogenital syndrome. In Cushing's syndrome, while markedly elevated values are sometimes found, normal or even depressed values are frequently encountered.

characteristically excrete abnormally high quantities, as shown in Table 3. Fluctuations in output occur, so that where laboratory confirmation of this diagnosis has been essential, we have found it advisable

TABLE 3
URINARY FORMALDEHYDOGENIC CORTICOSTEROIDS* IN 7 CASES OF CUSHING'S SYNDROME
Mg./24 Hrs.

CASE SEX-AGE	1 M 25	2 F 32	3 M 38	4 M 33	5 F 40	6 F 33	7 F 16
	1.20 1.30 1.09 1.01 0.87	1.45 1.35 0.93 0.46 0.76	0.93 0.97 0.94 1.29 1.16	1.32 1.10 1.57 pituitary irradiation 0.65 0.76 2.38 0.65 1.86 2.71 subtotal adrenalectomy	3.15 2.56 subtotal adrenalectomy	0.92 4.17 1.68 2.56 2.96 2.72 3.12 2.56 tumor removed 0.79 0.44	2.14 2.37 1.54 tumor removed 0.54 0.68 0.33

*normal values 0.3-1.0 mg./24 hrs.

URINARY FORMALDEHYDOGENIC CORTICOSTEROIDS

The test for formaldehydogenic corticosteroids is designed to measure the glucocorticoid activity of the adrenal, or, expressed differently, that adrenal activity related to the secretion of hydrocortisone and like substances. From considerable experience with this test we can draw several conclusions: (1) In

to run several determinations over a period of weeks or months. The management of Cushing's syndrome is so formidable an undertaking that we feel this added effort is worthwhile when the diagnosis is in doubt, as is sometimes the case.

In summary, increased amounts of formaldehydogenic corticosteroids are usually found in the urine

of patients with Cushing's syndrome, the condition in which this test has its principle value. The test is of little diagnostic value in hypoadrenal states. Our findings with this test are in agreement with those of Mason² who has recently reviewed the subject.

mones) which stimulates the graafian follicles in the ovary, and the seminiferous tubules in the testes. FSH is not demonstrable in the urine of prepubertal children. During puberty it appears in the urine in small amounts and is normally present throughout

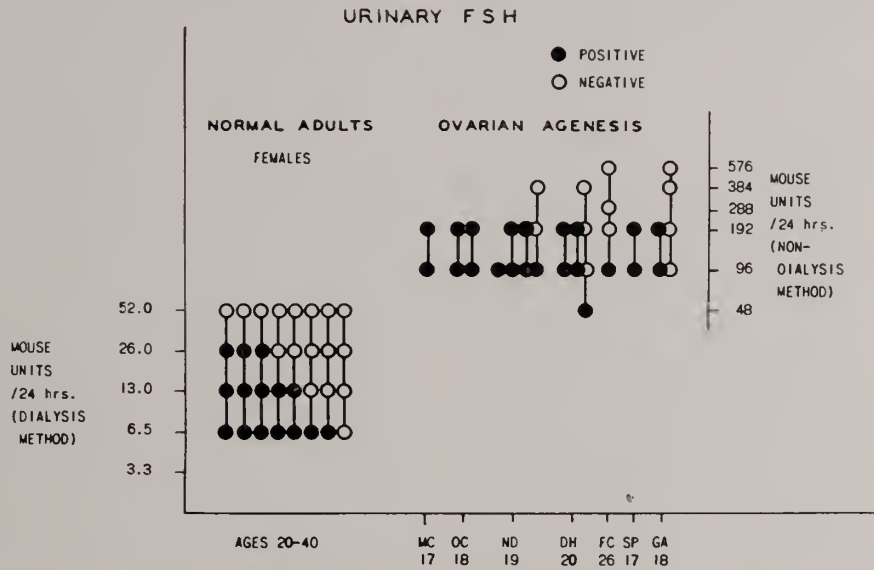


Fig. 3.—Urinary follicle-stimulating-hormone in normal adult females and in patients with primary ovarian agenesis. Circles connected by vertical lines indicate dilutions at which one urine specimen was tested: each from the group of 8 normals was tested at 6.5, 13, 26, and 52 mouse units/24 hrs. In rare instances a normal individual has shown no FSH. More than one test was run on patients O.C., N.D., D.H., and G.A. (see text).

URINARY FOLLICLE-STIMULATING-HORMONE

This test for quantitative gonadotropins, usually called follicle-stimulating-hormone, or FSH, is performed as a bio-assay in mice. It measures the excretion of the anterior pituitary hormone (or hor-

adult life, increased amounts being excreted in the post-menopausal state.

Since estrogen inhibits pituitary formation of FSH, it follows that where estrogen is lacking, FSH production and excretion will be high. The same ap-

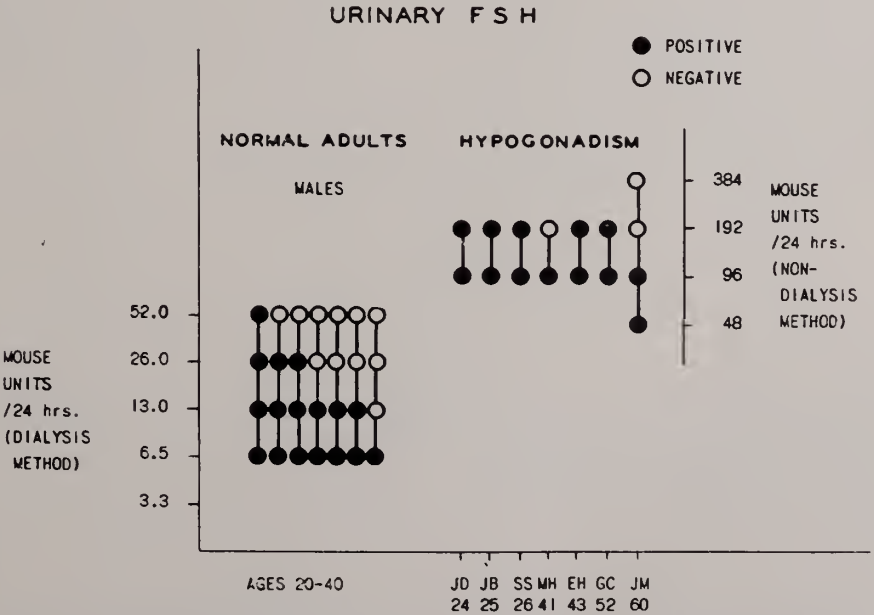


Fig. 4.—Urinary follicle-stimulating-hormone in normal males and in males with hypogonadism. Circles connected by vertical lines indicate dilutions at which one urine specimen was tested.

pears to be true for so-called male estrogen (inhibin), the hormone presumably produced in the seminiferous tubules.

Normal adults excrete amounts from 6.5 to 52 mouse units/24 hrs. although in rare instances urine from an apparently normal woman has given a negative response at the level of 6.5 mouse units. Fig. 3 demonstrates the elevated values characteristic of the syndrome of primary ovarian agenesis. After treatment with estrogen the FSH excretion diminishes as is shown by additional tests on cases N.D., D.H., and G.A. The syndrome of primary ovarian agenesis or primary ovarian failure is not so rare as might be supposed, and is characterized by short stature, lack of sexual development, primary amenorrhea, and a number of other congenital defects such as increased carrying angle of the arms, coarctation of the aorta, and others. The high FSH excretion in these girls is quite helpful in differentiating them from pituitary dwarfs. Likewise, as shown in Fig. 4, some males with primary hypogonadism excrete elevated amounts of FSH. For example, a number of cases of Klinefelter's syndrome³ have been studied and here FSH determination is particularly helpful, high values being found. Such patients show gynecomastia and testicular atrophy involving the seminiferous tubules, with resultant aspermatogenesis. Leydig cell function is preserved, so that secondary sex characteristics are normal, as is excretion of 17-ketosteroids. Finally, FSH excretion is diminished, as would be expected, in nearly all instances of panhypopituitarism.

In summary, FSH determination is a worthwhile diagnostic test in (1) panhypopituitarism where the values are below normal, (2) in the syndrome of primary ovarian agenesis where the values are elevated, and (3) in certain cases of primary testicular failure where elevated values are also found. It

should be emphasized that this test is of no special help in the diagnosis or in the management of the majority of cases of abnormal menstrual bleeding.

COMMENT

An attempt has been made to point out a limited number of specific endocrinopathies in which the determination of urinary 17-ketosteroids, of formal-dehydrogenetic corticosteroids, or of FSH, may be an important factor in the differential diagnosis. This discussion does not include a number of less clearly defined syndromes where the clinical picture as well as the interpretation of the laboratory data is more uncertain. As with many other laboratory tests, the results with these procedures may be affected by a number of non-specific factors; for example, 17-ketosteroid excretion may be diminished in severe malnutrition and in renal and hepatic disease, whereas corticosteroid excretion may be increased in febrile and other stressful states. As would be expected, the results of these tests would be readily modified by previous hormonal therapy. It is important, therefore, as always, to interpret data derived from these assays in the light of the total clinical picture.

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Corynebacterium Diphtheriae Meningitis

Case Report

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THE purpose of this paper is to report a case of meningitis caused by *Corynebacterium diphtheriae* and to describe its treatment and complications.

The first case in which a diphtheroid organism was cultured from the spinal fluid was reported in 1900 by Wernecke¹. Later Hoag² recorded in chart form the isolation of a diphtheroid organism from the brain. In 1917 Mellon³ stated that he had isolated diphtheroid organisms from the spinal fluid and records this case in his Table II. In the same year Atkinson⁴ reported five cases of diphtheroid meningitis. Since this series of five cases, only seven cases^{4,5,6,7,8,9,10} have been added to the literature, bringing the total to fourteen known cases. These cases are summarized in Table I.

Table I. The first twelve cases listed in Table I were untreated, while number thirteen received a sulfonamide and the last case received intrathecal and systemic streptomycin. None of these cases had received diphtheria antitoxin.

acterized by vomiting, anorexia, lethargy, and fever. The morning after the onset of her symptoms she seemed improved but by evening all of her symptoms were more marked. She was taken to a physician who prescribed an unknown medication. For the next two days she became progressively worse. On the morning prior to admission she was observed biting her arms and shortly suffered a generalized convulsion and later that evening had a similar seizure. She was seen by a second physician who administered 450,000 units of procaine penicillin. The morning of admission her neck was stiff and she was immediately referred to the University of Virginia Hospital.

The review of systems failed to reveal any signs and symptoms of antecedent disease and it was noted that she had never received immunizations. The past medical and family histories were non-contributory.

On admission the patient was in a semicomatose condition and responded sluggishly to painful stimuli.

TABLE I

CASE	AUTHOR	YEAR	PROBABLE ORGANISM	RESULT
1	Werneke	1900	C. xerose	died
2	Hoag	1907	Diphtheroid	died
3	Mellon	1917	C. hoagii	unknown
4	Atkinson	1917	C. pseudodiphtheriticum	died
5	Atkinson	1917	C. pseudodiphtheriticum	died
6	Atkinson	1917	C. pseudodiphtheriticum	died
7	Atkinson	1917	C. diphtheriae	died
8	Atkinson	1917	C. diphtheriae	survived
9	Dick	1920	C. pseudodiphtheriticum (?)	died
10	Miller & Lyon	1921	C. pseudodiphtheriticum	died
11	Kessel & Romanoff	1930	C. pseudodiphtheriticum	survived
12	Gibson	1935	C. Ovis	died
13	Clapper & Carlquist	1945	C. ulcerogenes	died
14	Joseph	1954	C. ulcerogenes	hydrocephalus

CASE REPORT

D.B., a seventeen month old white female, had been in good health until five days prior to admission to the hospital. The onset of her illness was char-

The rectal temperature was 104.4 degrees, the pulse 16+ per minute, and the respirations 16+ per minute. The skin was pale, hot, dry, and showed no evidence of rash. The ears, eyes, nose, and throat were entirely normal. The respirations were of Cheyne-Stokes type and lungs were clear to percus-

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sion and auscultation. The cardiovascular, abdominal, and genital examinations were within normal limits. The neurological examination showed the neck to be supple and the spine resistant to flexion. The deep tendon reflexes were generally hypoactive and the abdominal reflexes absent. The Kernig, Brudzinski, Babinski, Gordon, Chaddock, and Oppenheim signs were all normal.

The admission urine showed 4+ albumin which rapidly cleared after hydration of the patient. The microhematocrit was 35 per cent, the white blood cell count 11,400 with a differential count showing 37 polymorphonuclear cells, 13 large lymphocytes, 49 small lymphocytes and one monocyte. There were 7 large and 12 small pathological lymphocytes.

Wasserman, tuberculin tests and electrocardiogram were all normal.

Shortly after admission a lumbar puncture was done and blood cultures drawn. The spinal fluid findings for the entire observation period was summarized in Table II.

Table II. The initial spinal fluid culture, prior to intensive therapy, grew a diphtheroid organism with morphologic and colony characteristics similar to *Corynebacteria*. The organisms grew on brain

Because no organisms were seen on direct smear of the spinal fluid the patient was started on blanket anti-bacterial therapy which consisted of aqueous penicillin 400,000 units intramuscularly every two hours, chloramphenicol 400 milligrams intramuscularly every six hours, and sodium sulfadiazine one gram by subcutaneous clysis. The latter drug was changed to 300 milligrams by mouth the following morning. When the nature of the organism was learned, the sulfadiazine was discontinued and 20,000 units of diphtheria antitoxin was given intramuscularly. After sensitivity studies was completed chloramphenicol was discontinued.

The patient rapidly became afebrile and gradually more alert. Except for isolated episodes of vomiting the hospital stay was one characterized by progressive improvement. Subsequent cultures of the blood and spinal fluid failed to show bacterial growth. The patient was discharged from the hospital apparently well.

READMISSION

After three days at home the patient was returned to the out-patient clinic because of periodic vomiting. Physical examination was normal and a lumbar punc-

TABLE II

DATE	PRESSURE	CHAR- ACTER	PANDY	ROSS JONES	CELLS	TYPE*	PROTEIN	SUGAR	CULTURE FOR DIPHTHERIA
5/25		Cloudy	Gr. Inc.	2+	350	84% PMN	75 mgm. %	16 mgm. %	Positive
5/26		Cloudy			804	72% PMN	100	57	Negative
5/31		Clear	Mod. Inc.	2+	100	6% PMN	100	50	Negative
6/4		Clear			75	12% PMN	50	80	Negative
Discharge 6/9		Clear	Sl. Tr.	Tr.	7	1 PMN	50	66	Negative
Readmission 6/13	310mm.	Clear	Sl. Tr.	Tr.	2	0 PMN	40	63	Negative
Operation 8/4	370mm.	Clear	Sl. Inc.	1+	24	50% PMN	15	54	Not done.

*All other cells are lymphocytes. Reported as percentage polymorphonuclear except in one instance (6/9).

broth both aerobically and anaerobically, blood agar, chocolate agar, in candle jar (microaerophillic) but failed to grow on eosin methylene blue plate. The organism gave an acid reaction without gas formation in dextrose and no change in saccharose. *In vitro* studies indicated that the organism was sensitive to penicillin, chloramphenicol, tetracycline, and oxtetracycline. The organism was not virulent for the guinea pig when inoculated subcutaneously. Aeorbic and anaerobic blood cultures grew the same diphtheroid organism. It was felt that the growth, morphology, and sugar reactions were consistent with a positive identification of *Corynebacterium diphtheria*.

ture (Table II) showed improvement, but a spinal fluid pressure was not obtained. She was given an anti-spasmodic and instructed to return.

Five days later she returned and was admitted to the hospital. The day after her clinic visit the parents became cognizant of the patient's being "crosseyed". She grew more lethargic and was irritable if bothered. Vomiting has increased in frequency.

On physical examination the patient appeared acutely ill. She was aroused with difficulty. There was an obvious internal strabismus and the eyes appeared pushed down. The temperature was 98.8 degrees, the pulse 88 per minute and the respira-

tions 28 per minute. The circumference of the head was 46.5 centimeters. Examination of the eyes revealed bilateral internal strabismus most marked on the left. The fundi were normal and the remainder of the physical examination, including the neurological examination, showed no abnormalities.

The urine and hemogram showed no abnormalities. A lumbar puncture was done (Table II) and the opening pressure was found to be elevated. The analysis of the fluid showed no marked change.

An electrocardiogram showed some suggestion of right ventricular hypertrophy and strain. Cross-matching revealed a high Anti-M-titer.

Ventriculograms were done on the third hospital day and these showed dilatation of the ventricular system but no evidence of air over the cerebral hemispheres. Dye was recovered by lumbar puncture fifteen minutes after injection into the ventricles.

After the diagnosis of communicating hydrocephalus was established, continuous spinal drainage was instituted for two days. A left subarachnoid peritoneal shunt operation was performed by Dr. William Silvernail of the neurosurgical service. Except for one short episode of stiff neck, increase in temperature and changing neurological signs, all of which cleared spontaneously, the post-operative course was one of steady improvement until the time of discharge. The patient was reluctant to walk and weakness of the legs was noted on physical examination.

Since the operation the patient was readmitted on several occasions because of vomiting and return of her "hydrocephalic look". However, each time she has returned to her post-operative status without treatment. Recent ventriculograms show persistent dilatation of the ventricles. Examination of the spinal fluid at the time of ventriculography was normal. At the present the child is still experiencing periodic episodes of vomiting.

DISCUSSION

Past experience with the treatment of *Corynebacteria* meningitis is extremely limited and unsuccessful. The signs and symptoms are not unlike those found in other types of meningitis. It is felt that in any similar case diphtheria antitoxin should be given as soon as the organism is identified as belonging to the genus *Corynebacterium*.

One should not delay giving the antitoxin while species identification is being carried out. Other therapy should follow established principles.

SUMMARY

A case of *Corynebacterium diphtheria* meningitis and its sequelae is presented. The use of diphtheria antitoxin in similar cases is suggested.

Addendum. Since the preparation of this paper the patient was readmitted to the hospital because of progressive signs of increasing intracranial pressure. A subarachnoid ureteral shunt was performed. Unfortunately an obstructive hydrocephalus developed and the patient expired very shortly. Permission for autopsy was refused.

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Operative Cholangiograms

A Critical Review of Their Value

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IN AN EFFORT to assess the value of cholangiography as done in our cases, we have studied the group of bile tract patients operated upon in the C. & O. Hospital since March, 1952. These cases have been studied to ascertain the advantages and disadvantages of cholangiography, and, in addition, have been compared to a similar group of bile tract cases operated on prior to our employment of operative cholangiograms.

Operative cholangiography was first reported by Mirizzi in 1935, at which time it was used to aid in the detection of common duct stones. Recently its use has been broadened to include the detection and study of other conditions affecting the bile ducts, including strictures, tumors, congenital anomalies, and in the reconstruction of the bile tract. Its use in the detection of common duct stones and as an aid in assuring the surgeon that the common duct is free of stones, have been the two most common and probably most useful functions of the procedure.

The performance of operative cholangiography is relatively simple and requires very little additional operative time. Our method has utilized the cystic duct stump, through which a ureteral catheter or small polythene tube is passed into the common duct for a distance of one or two cm. This tube is fixed firmly in place with a single catgut tie about the cystic duct stump, bile being aspirated through the catheter in order to rid it of air bubbles, and saline is then injected into the system to assure the absence of leakage. Ten to fifteen cc. of 35% Diodrast is then instilled into the common duct slowly and the X-ray exposure is made, in our case using a 30 milliamperere portable machine with a 14 x 17 grid casset in a wooden tunnel beneath the patient. While the picture is being developed, the gallbladder bed is closed and hemostasis is established. When a normal cholangiogram is obtained, the tie about the cystic duct is tightened and fixed, after removal of the ureteral catheter, and the abdomen is closed. In the event of an abnormal cholangiogram, whatever procedure indicated is performed and further X-rays may be

obtained, as indicated, in order to assure the surgeon that the common duct is completely patent and free of disease. We have seen no reaction to the dye or any appreciable association cholangitis. It is thought that immediate T-Tube cholangiography should follow all choledochostomies.

During the past three and one-half years, two hundred and sixty-three (263) bile tract cases have been studied. Cholangiograms were not done in twenty cases because of the acuteness of the inflammatory condition of the cystic and common ducts, the inability to catheterize the duct, the obvious presence of stones within the common duct on palpation, and in one case where the gallbladder was removed as the secondary seat of disease resulting from a penetrating duodenal ulcer. Cholangiograms were unsuccessful in seventeen (17) cases occurring in the early part of the series and were primarily the results of X-ray difficulties. The complete cooperation of the Radiologist, Anesthesiologist and Surgeon are essential to the production of interpretable and valuable cholangiograms. It is our feeling that the surgeon who is dealing with the condition involved should interpret his own cholangiograms. Accuracy in interpretation will increase with use and it is felt that cholangiograms, if used, should be utilized routinely in bile tract cases, rather than in just the so-called indicated cases.

In two hundred and twenty-six (226) cases, cholangiograms were produced which were interpretable, of which one hundred and eighty-eight (188) were normal and thirty-eight (38) were considered abnormal. In the one hundred and eighty-eight (188) cases with normal cholangiograms, no exploration was done. Of the thirty-eight (38) abnormal cholangiograms, twenty (20) cases were explored (Fig. #1). Eleven (11) of the cases with abnormal cholangiograms presented defects in normal sized common ducts, two (2) of which were jaundiced. Five (5) were explored because of these defects, and pathology was found in three (3) cases. In the six (6) cases not explored, it was thought that the defects were due to air bubbles. Seven (7) dilated, ob-

Presented at annual meeting of The Medical Society of Virginia, Richmond, October 16-19, 1955.

structed ducts were noted, all were jaundiced, all seven (7) were explored, and all revealed pathology. Twelve (12) cases demonstrated only dilated ducts with no defects or obstruction being noted, and one of these was jaundiced. Three (3) were explored from this group because of the extreme degree of dilatation, pathology being found in only one (1) case, that being a cholecysto-duodenal fistula. In the latter part of the series, common duct dilatation alone has not been considered as an adequate indication for exploration, provided no obstruction is

FIGURE 1. ABNORMAL CHOLANGIOGRAMS

	Ab-normal Cho-langi-ogram	Jaun-dice	Ex-plored	Path-ology Found
Defects in Ducts.....	11	2	5	3
Dilated—Obstructed Ducts.....	7	7	7	7
Dilated Duct—No Ob- struction.....	12	0	3	1
Dilated Ducts With Defects.....	8	4	6	4

present. Eight (8) cases presented dilated ducts containing defects, with four (4) patients having jaundice. Six (6) of these ducts were explored, pathology being found in four cases. The defects noted in the two cases not explored, and in the two cases explored with non-productive findings, were typical of air bubbles.

In order to analyze these results, a comparison is made to a similar series of bile tract cases done prior to the use of cholangiography by the same sur-

FIGURE 2. COMPARISON OF CASES WITH AND WITHOUT CHOLANGIOGRAPHY

	With Cholangi-ography	Without Cholangi-ography
Choledocostomy.....	9.4%	15.6%
Pathology Found.....	71.4%	60.0%
Recurrences.....	0	2.5%
Deaths.....	1.77%	3.1%

gical group (Fig. #2). With cholangiography, 9.4% of the bile tract cases received choledochostomy, and without cholangiography in the earlier series 15.6% were explored. Pathology was found in 71.4% of

choledochostomized cases receiving cholangiography and in 60% of those not X-rayed. There have been no recurrences or known residual stones, which have been brought to our attention, in the cases with cholangiography, and 2.5% of our earlier group without cholangiograms necessitated subsequent choledochostomy for residual stones. We are aware that the follow-up has been too short to accept this zero percentage completely. We have had a mortality rate of 1.8% in the series with cholangiography and 3.2% deaths in the series without cholangiography. There has been an 89.3% follow-up of three months to three and one-half years in the series being reported.

In a review of the literature, it has been found in routine bile tract surgery that the percentage of choledochostomy will vary from 7¹ to 34%,² depending upon the practice of the individual surgeon. As previously noted, our choledochostomy rate without

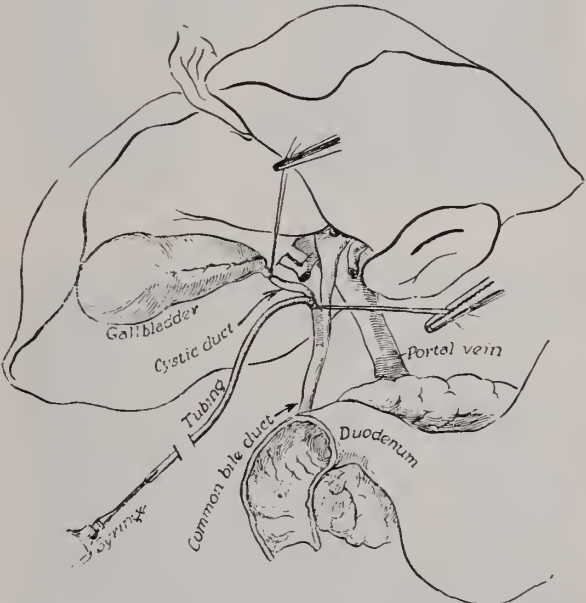


Fig. 3. Diagram showing catheter being placed through cystic duct into common duct for cholangiogram.

cholangiography was 15.6%, and with cholangiography it has been 9.4%, which is a reduction of approximately 6%. The reported percentages of non-productive explorations of the common duct vary from 45³ to 54%¹. Our rate without cholangiography was 40%, and with the use of cholangiograms it has been 28.6%, giving us a reduction of approximately 11% of non-productive explorations. The recurrence or overlooked stones rate in the literature is reported as 3⁴ to 18%,⁵ but in our series the rates have been 2.5% without cholangiography and zero per cent with cholangiography. Again, we should like to state that we believe that a longer term follow-up must be

obtained in order to evaluate this figure more correctly.

In our series, operative cholangiography has been most helpful in the determination of the presence or absence of common duct stones. It is desirable to obtain a T-tube cholangiogram on all cases which



Fig. 4. Normal cholangiogram showing free flow of dye into duodenum from normal sized duct.



Fig. 5. Slightly dilated duct with defects which were proven to be stones.

have common duct exploration, in order to assure the complete absence of stones and the patency of the common duct. It has been impressive to us that in three cases which were thought, after exploration of the duct, to be clear of stones, we found a cholangiogram via the T-tube to demonstrate residual stones in each case. These stones were removed and im-



Fig. 6. Dilated and obstructed common duct due to a stone at the Ampulla of Vater.

mediate subsequent T-tube cholangiograms demonstrated absence of defects, and a free flow of dye into the duodenum.

Operative cholangiography has been of great help to us in several reconstructive bile tract cases in which dissection and reconstruction were quite difficult, but were materially aided by visualization of the extra hepatic bile tract system through the use of cholangiograms. Operative cholangiograms are also of value in the avoidance of injury to the common duct, and in the immediate detection of any injury which may inadvertently occur. This is because a more detailed dissection of the cystic duct is necessary, which aids in preventing injury to the common duct. Other conditions in which cholangiography is an adjunct are: Congenital anomalies seen in early infantile life; tumors or stones in the intra-hepatic biliary system; and rarely in the early recognition of

intra-hepatic tumors which may go undetected, but are recognized by the distortion produced in the intra-hepatic portion of the cholangiogram.

SUMMARY

Operative cholangiograms may be done with little increase in operative time and minimum risk to the patient. The authors believe that immediate cholangiograms along with the usual indication of common duct pathology will offer a more perfecting diagnostic aid to bile duct disease. It is felt that there will be a reduction in the number of unnecessary cholecystostomies and that fewer common duct stones will be overlooked through the use of operative cholangiograms.

The routine use of cholangiograms will lessen the unfortunate injuries to the common duct. When reconstructive surgery is attempted upon the bile tract, immediate cholangiograms offer more assurance as to the effectiveness of our reconstructive efforts.

Intra-hepatic biliary tumors or stones, and con-

genital anomalies, may be more accurately evaluated by the employment of cholangiograms.

The results obtained in this series indicate that routine operative cholangiography is a very valuable adjunct to bile tract surgery.

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One Shot of Penicillin

A study conducted among Navy recruits has shown that one injection of penicillin may prevent the development of streptococci infections.

A single injection of benzathine penicillin G was given to each of 2,913 recruits at the Bainbridge, Md., training center. These men had been found to have beta-hemolytic streptococci in their throats. In 624 of these men the streptococci were classified as group A, which cause sore throats and rheumatic fever. The one injection of penicillin eradicated the bacteria in the throats of 597 of these men and prevented reinfection for at least one month, the report in the January 21 *Journal of the American Medical Association* said. Of those 597 men, 576 had no known recurrence of the bacteria for the remainder of their recruit training.

The results indicated that benzathine penicillin G may warrant further investigation as "a safe, effective, long-term single-injection" preventive agent in the control of streptococci infections.

Unfavorable reactions, which generally consisted of rash and hives, occurred in only 25 of the 2,913 men. One case was considered serious. There was no case of rheumatic fever in any recruit who had received an injection of the antibiotic.

Making the report were Lt. Thomas J. Brooks, Jr., (MC), U.S.N.R., now professor and chairman of the department of preventive medicine at the University of Mississippi School of Medicine, and Capt. Tilden I. Moe, (MC), U.S.N., now commanding officer of the U.S. Naval Hospital, Guantanamo Bay, Cuba.

MACK I. SHANHOLTZ, M.D.
State Health Commissioner of Virginia

Reporting Communicable Diseases

The present system of reporting communicable diseases is not very old. Certain states had attempted to obtain such information during the colonial period and other states had required reports in the early days of the Union. As early as 1741, Rhode Island required tavern keepers to report contagious diseases among their guests and in 1821, Louisiana enacted a law calling for similar reporting by proprietors of inns and boarding houses. In 1870, local boards of health instituted reporting of the more important contagious diseases. The collection of data on morbidity by the Public Health Service had its beginning as the result of an Act of Congress in 1878, which established quarantine measures against cholera, plague, yellow fever, and smallpox. A year later a specific appropriation was made for the collection and publication of reports of notifiable diseases, chiefly those from foreign ports. In 1880, during the taking of the census, a question was asked about the number of persons sick and unable to work on the day of the census. In 1893, an act provided for the weekly collection of information from state and municipal authorities throughout the United States. So that there might be uniformity in registration of morbidity statistics, in 1902 Congress enacted a law which directed the Surgeon General of the Public Health Service to provide forms for the collection, compilation, and publication of data. As a result of this action, reports of notifiable diseases, which, up to this time, had been received from very few states, gradually increased and more and more states regularly submitted such information on both a monthly and an annual basis. All states did not report regularly until after 1925.

The State and Territorial Health Officers Association recommended in 1913 that a weekly telegraphic report be made by states for a few diseases. Several years passed before a large number reported in such manner. In 1917, the State and Territorial Health Officers Association recommended the adoption of the practice of reciprocal notification of diseases in persons who apparently became infected outside of the state in which it was diagnosed. This practice had been established by Minnesota in 1914.

Until 1942, the collection, compilation, and publication of morbidity statistics were directed by the Division of Sanitary Reports and Statistics of the Public Health Service. In 1942, these functions were transferred to the Division of Public Health Methods and, in 1949, to the National Office of Vital Statistics.

At the start, the purpose of reporting communicable diseases was to ascertain as early as possible, the presence and prevalence in a community of diseases dangerous to the public health, especially those named above and classed as pestilential diseases. Reporting permitted the application of quarantine as a control measure. Later, the collection and the assembling of such data led to more effective use and provided the basic material needed by local and state agencies in planning more effective programs for the prevention, as well as control, of some infectious diseases. These reports have also indicated the futility of severe restrictive measures in attempting to control certain diseases and have brought about changes in our concepts of quarantine.

Accurate reporting of communicable disease morbidity is necessary in supplying a considerable amount of statistical material on the incidence of infectious diseases, trends of such diseases, distribution of the diseases as to race and sex, and their occurrence both seasonal and geographical. It also gives notification of the presence of disease and may lead to epidemiological investigation. Such information is frequently of value to those engaged in medical research or in medical practice and provides data on a state and nationwide scale that affords a sounder basis for developing better methods of prevention or treatment.

It is clear that the practicing physician is the source of morbidity reports. While all physicians encounter communicable diseases and should report the same, it is logical to assume that most reports will be made by pediatricians and general practitioners. To be effective, there must be a realization on the part of physicians that complete and prompt reporting is essential and there must be harmonious relationships between physicians and local and state

health departments. When local health departments have a more complete roster of diseases prevailing in their areas, they will be in better position to assist in prevention and control measures and to make epidemiological investigations. The State Health Department compiles records of reportable diseases from all over the State, makes the Weekly Morbidity Report, sends necessary reports to Washington, and offers assistance in the control of diseases.

The physicians of Virginia have cooperated and it is believed that many more will become interested in making the collection of this important information more complete.

MONTHLY REPORT OF THE BUREAU OF COMMUNICABLE DISEASE CONTROL		
	January 1956	January 1955
Brucellosis -----	0	1
Diphtheria -----	1	2
Infec. Hepatitis -----	63	162
Measles -----	957	353
Meningococcal Infections -----	6	8
Poliomyelitis -----	0	2
Rocky Mt. Spotted Fever -----	2	1
Streptococcal Infections -----	577	755
(Including Scarlet Fever)		
Tularemia -----	1	1
Typhoid Fever -----	0	3
Rabies (In Animals) -----	32	61

Hypnotism Warning

Hypnotism can be a useful tool in the hands of a qualified specialist, but it can be "downright dangerous" when used by an irresponsible person. Writing in the February Today's Health, published by the American Medical Association, Dr. James A. Brussel, Willard, N. Y., warned against the indiscriminate use of hypnotism by lay persons to "cure" symptoms—both physical and mental—and to develop delusions such as "mastery of the mind."

He said three principles regarding hypnotism to which medical science subscribes are: 1. Where hypnotism removes symptoms, an illness may be obscured and prolonged, since causes are not treated. 2. Where hypnotism treats emotional symptoms instead of causes; more serious personality defects may occur. 3. Where hypnotism evokes delusions, habits of thought as harmful as drug addiction may be formed.

Hypnotism can be useful, especially in psychotherapy, by relieving certain symptoms and manifestations. However, these very gains are exploited by untrained and irresponsible persons. "By virtue of the sudden, immediate and seemingly successful

results achieved through hypnosis, the quack flourishes and creates damage that is at times appalling."

Hypnotism by trained specialists in psychotherapy may be used to remove some psychological or physical condition which interferes with the beginning of satisfactory therapy. Its use, though, must be limited to certain neuroses. Hypnotism is not a cure in the strict sense of the word and its results are not always permanent. It can be used only on persons who are willing to cooperate and who have, at least, an unconscious desire to secure relief.

Since there are not psychiatrists enough for all, quacks have enjoyed a "Roman holiday." In the process, the quack "can do irreparable harm by his ability to produce hypnotic effects which he doesn't understand and doesn't know how to use."

Only public awareness can halt the growing menace of hypnotic quacks, Dr. Brussel said. "As long as people are willing to gamble their health with untutored, inexperienced practitioners, the menace will continue to grow."

Dr. Brussel, a certified psychiatrist, is a member of the American Psychiatric Association.

JOSEPH E. BARRETT, M.D.
*Commissioner, Department Mental Hygiene
and Hospitals*

Who Are the Patients in Our Mental Hospitals?

NOTE: This is the second of a series of articles on the types of patients resident in the mental hospitals in Virginia. These articles are prepared by the Department's Statistician as information about the different aspects of the hospital population. Charts, which will show a graphic picture of the various characteristics of these patients, will also be included. It is hoped that this will be valuable information to the medical profession in Virginia.

JOSEPH E. BARRETT, M.D.
Commissioner

The build-up of patients resident in State Mental Hospitals for long periods of time has its effect on the establishing of necessary facilities for their care and treatment. It is becoming more evident that, unless patients receive treatment which will enable them to leave the hospital within the first year after admission, the longer it takes for them to leave the hospital—if ever—alive.

In the previous article we stated that 21.8% (2,458) of 11,303 patients in hospital on June 30, 1955 had been there 20 years or longer. In analyzing this group, 51.5% (1,265) are diagnosed as schizophrenics and 25.0% (615) as manic-depressives,

thus 76.5% of those resident 20 years or longer are in the functional psychoses group. (Chart No. 1) The balance of 23.5% were distributed 1.5% (38) in the syphilis of the central nervous system group, 0.9% (21) in the senile arterio-sclerotic group 9.7% (240) mentally deficient and 11.4% other groups comprised principally of types of chronic brain syndromes other than the senile arteriosclerotic and syphilitic groups.

Of this 21.8% of the 11,303 total population who have been resident 20 years or longer, 16.6% of the total are in the functional psychoses group.

The long term patients not only consist of those resident 20 years or longer, but also those resident from 10-19 years, of which a large part will gradually become part of the residents in 20 years or longer group. This group (10-19 years) comprised 20.3% (2,331) of the total of 11,303 patients. Here again the functional psychoses group is a large part of this group—58.7% (1,368) comprised of 37.9% (883) schizophrenics, 19.1% (445) manic-depressives and 1.7% (40) involuntal. (Chart No. II)

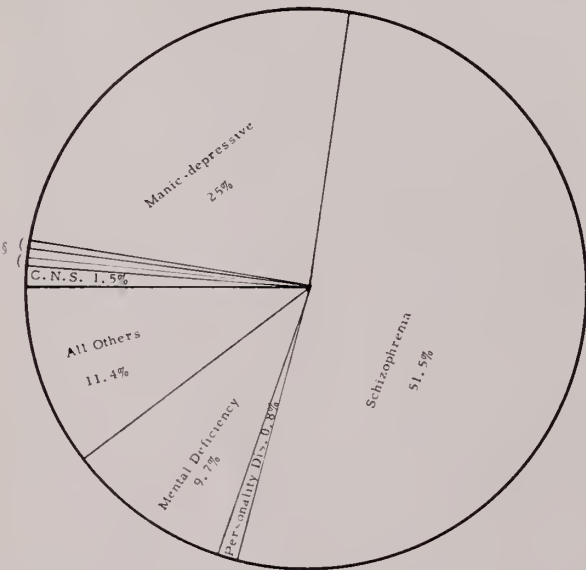


CHART NO. I—Diagnostic distribution of patients on record 20 years or longer resident in state mental hospitals June 30, 1955.
§Cerebral arteriosclerosis 0.4%, Senile 0.5%, Involuntal 0.2%

Contributed by EDNA M. LANTZ, Statistician, Department Mental Hygiene and Hospitals.

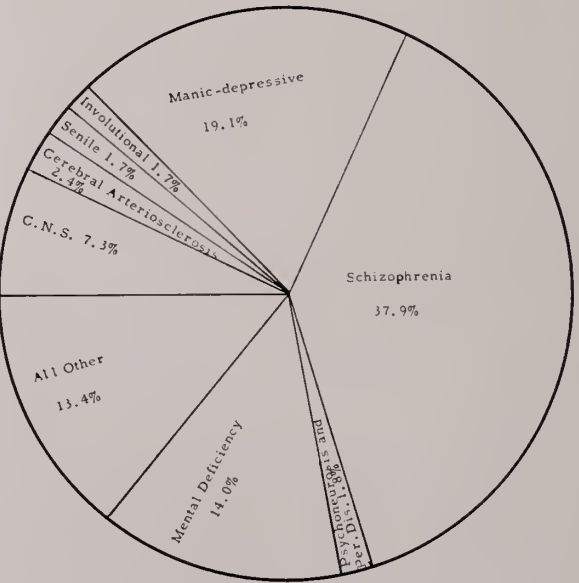


CHART NO. II—Diagnostic distribution of patients on record 10-19 years resident in state mental hospitals June 30, 1955.

The number of senile arteriosclerotics who remained in this group—4.1% (97)—was a slight increase over the 20 year or longer residents and there were

also more of the syphilis of the central nervous system—7.3% (171). The mentally deficient constituted 14.0% (328) and the balance of 14.8% are largely of the other types of chronic brain syndromes. Of the 20.3% of the total population of 11,303 patients, 12.1% are in the functional psychoses group.

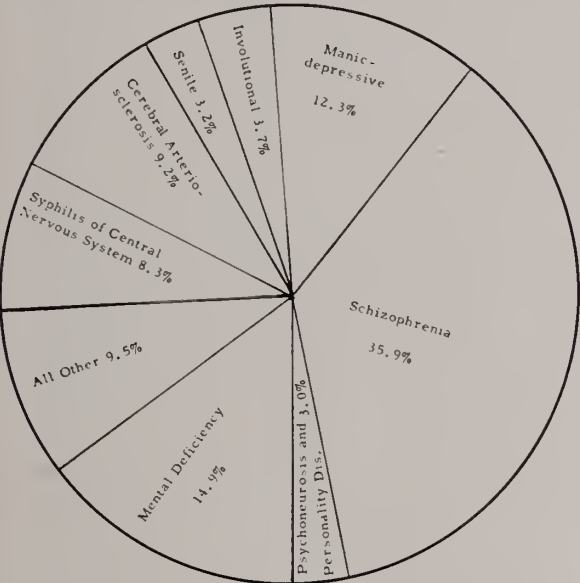


CHART NO. 111—Diagnostic distribution of patients on record 5-9 years resident in state mental hospitals June 30, 1955.

Dropping back a five year period to those who remained in from 5-9 years, again the functional psychoses group comprise 51.9% of this group (991 patients out of 1,909), made up of 35.9% schizophrenics, 12.3% manic-depressive and 3.7% involuntary. (Chart No. III) There are more of the senile arteriosclerotic group in this time period—12.4% (237) but they will be decreasing mostly by death. The functional group, which is a much younger age group, is the potential build-up.

Summarizing the total number in residence 5 years and over, there are 6,698 or 59.3% of the total population in this group with the functional psychotic groups comprising 4,239 or 63.3% of these long term patients. For many of these cases it may be too late to accomplish any effective treatment because of deterioration due to long hospitalization. Since most of these have not received much more than custodial care for several years, a concentrated treatment program would be an arduous task.

Early treatment is much more effective. Therefore, with early treatment and resulting releases, the large build up in mental hospitals for long term and old age patients will be greatly decreased.

The next article will show time in hospital for some specific diagnostic groups.

Celery Stalks Through Medicine

Celery is well enough known on the dinner table as an appetizer or flavoring. In the days of the Renaissance, however, it had even more versatile uses.

This member of the parsley family is listed in "Diuretick Herball", a series of descriptions and illustrations of plants used in olden times to induce diuresis, featured in *Diuretic Review*. The journal is distributed to the medical profession by Lakeside Laboratories, Inc. of Milwaukee.

German physicians of 1562 were told in *Kreutter-*

buch, an herbal of the time, that celery seeds, really the diminutive ripe fruits, have diuretic and antispasmodic properties. Along with other common vegetables, such as dandelions and asparagus, it was recommended for use as a medicine with diuretic properties.

Celery is originally native to Europe, but was introduced to this country, where it thrived, at an early date. It is a casual, but hardly persistent, escape from gardens. In other words, it is known to grow wild as well as under cultivation.

The Medical Society of Virginia . . .

Special Committee to Study the Treatment of Alcoholism

The Medical Society of Virginia, meeting in Richmond on October 18, 1955, adopted a resolution setting up a Special Committee of the Society to study the merits of a Bill to be presented to the General Assembly of the Commonwealth of Virginia to establish treatment centers for alcoholics and to establish rehabilitation hospitals or farms for alcoholics. This Bill is to follow the recommendations of a "Commission to Study the Program for the Care, Treatment and Rehabilitation of Alcoholics", appointed by and reporting to the Governor of the Commonwealth pursuant to House Joint Resolution No. 110; the report of this Commission is published by the Commonwealth dated June 17, 1955.

The resolution of The Medical Society of Virginia is as follows:

WHEREAS, it is understood that a Bill will be presented to the General Assembly of Virginia to establish additional alcoholic treatment clinics in the State and also to establish a rehabilitation hospital for alcoholics requiring large expenditures of funds devised from the citizens of the Commonwealth, and

WHEREAS, some physicians and lay people have reservations as to whether the success of the treatment of alcoholics justifies the expenditures of such funds

THEREFORE, BE IT RESOLVED, that The Medical Society of Virginia appoint a special committee to study the matter and to advise the Legislative Committee of the Society prior to the next session of the General Assembly of their conclusions, and FURTHER BE IT RESOLVED, that this Committee be composed of physicians not primarily interested in the treatment of alcoholics, but that they be advised to interview physicians who do treat alcoholics, members of Alcoholics Anonymous, members of the clergy, social workers and others interested in the problem.

The President of The Medical Society of Virginia appointed the signers of this report to be members of this Special Committee.

This Special Committee conducted its investigations of the merit of the proposed Bill by interviewing persons familiar with the problems of alcoholism. The Committee requested and obtained interviews permitting free and frank discussion with leaders of the medical profession, including psychiatrists, with members of the Judiciary, with Welfare work-

ers, with members of the Alcoholics Anonymous, and others, and wishes to take this opportunity again to thank these citizens for their helpfulness and willingness to meet with the Committee. Summaries of these conversations were presented to each witness, for his correction and approval, and the consensus of the opinions of these witnesses forms the basis of this report.

The Committee sought to learn if there exists today any specific effective medical treatment of alcoholism. The Committee agreed in the beginning that the results or manifestations of the intemperate use of alcohol may require medical treatment, such as neuritis, hallucinations, cirrhosis of the liver, etc., but that is not the problem to be studied by this Committee.

The problem is whether or not there exists today any effective medical treatment of the alcoholic, that is of the individual who drinks excessively and without control, and the Committee, after its interviews, studies and deliberations, agrees unanimously that there does *not* exist today any specific effective medical treatment of alcoholism.

The origins or backgrounds of alcoholism are complex and poorly understood. For example, emotional, economic, and social pressures are frequently prominent, but follow no characteristic pattern. Furthermore, individuals exhibit widely varying reactions to alcohol. The Committee unanimously favors continuing research into the causes and treatment of this widespread social problem.

Many forms of treatment of alcoholism are now being utilized, with more or less uniform results irrespective of the method, these forms of treatment being medical, inspirational, legal or punitive. The common denominator of successful "treatment" lies within the alcoholic: he must first admit that he has a problem with alcohol, and second that he wishes help. Most witnesses agree that the Alcoholics Anonymous seem to be leaders in achievement of sobriety, and this group, the Committee believes, offers the most effective assistance available today to the individual who wishes to remain sober. Unfortunately, many alcoholics refuse help from any source.

In view of the preceding observations, the Committee recommends the following general actions in regard to the Report of the Commission to the Governor:

1. The Committee would not favor the adoption of a Bill which contains the recommendations of this Commission.
2. The Committee would favor the continuation of research in the problems of alcoholism, such as is now carried on at the Medical College of Virginia under the direction of Dr. Ebbe Hoff, and would favor the establishment of another research center at the University of Virginia, both of these centers to be provided with sufficient beds to furnish patients for clinical research.
3. The Committee would not favor at the present time the establishment of a farm—industrial type institution to care for alcoholics who refuse treatment at research centers in Richmond or Charlottesville or who may be committed or sentenced by a court.
4. The Committee opposes the expenditure of State funds to pay for the utilization of facilities of local hospitals in the care of acute or of chronic alcoholism.

The Committee will now consider in order the specific recommendations of the Governor's Commission (in quotation marks):

1. "A program of concentrated education on the problem of alcoholism should be established and effectively put into operation with the cooperation of the State Department of Education." The Special Committee opposes this recommendation for the reason that the cause of alcoholism is unknown, and thus no program can be established and made effective whereby students and others can learn how and why people become alcoholics. However, the Committee hopes that this educational approach will be studied as part of the research program.
2. "The operation of the treatment center at the Medical College of Virginia should be expanded so as to serve the needs of those patients in its service area whom it cannot now accept due to lack of space." The Committee feels that re-research in treatment should be continued, but does not believe that expenditure of funds for an enlarged treatment center is warranted by our findings. The demand for services furnished by this center appears to be met by the present facilities and staff.
- 3.-4. "Another treatment center . . . should be established at the University of Virginia", and . . . "outpatient clinics should be established by the State Department of Health . . . in Abingdon, the Arlington-Alexandria area, and Norfolk for the time being." The Committee does not concur with this recommendation because in the light of our present knowledge of treatment, such expenditure cannot be justified. The establishment of other treatment clinics throughout the State is, of course, not approved.
5. "The research program on alcoholism at the Medical College of Virginia should be continued and a similar program should be established at the University of Virginia Hospital." This recommendation is approved and has been commented upon before.
6. "In order to avoid establishment of a separate central hospital for alcoholics and to make use of hospitals close at hand, the facilities of local hospitals . . . should be utilized to treat alcoholics . . . local hospitals should make prior contractual arrangements with the the State Health Department and be reimbursed on a per diem basis." The Committee disapproves this recommendation for obvious reasons, namely that medical profession has no specific and effective treatment to cure the alcoholic, and that tax funds should not be diversified into private or local hospitals.
7. "A farm-industrial type institution should be established near one of the two State Medical Schools to care for alcoholics who refuse treatment at the two rehabilitation centers." The Committee does not approve this recommendation, and agrees with Mr. George M. Cochran, a member of the Governor's Commission, who submitted a minority report as follows.
 "Recommendation 7 provides for establishment of a farm-industrial type institution to care for alcoholics who refuse treatment at the centers provided and to be provided for that purpose. The police justices and civil judges throughout the State suggested this type of institution and of course the authorities in charge of the State Mental institutions would welcome an opportunity to free themselves from responsibility for a class of inmates which they feel should not be sent to them. However, the Commissioner of Mental Hygiene and Hospitals, who felt that a special institution should be established for alcoholics, also stated that all farms for alcoholics have been abandoned. He suggested that the proposed special institution be on an industrial as well as agricultural basis.
 "In view of the fact that farms for alcoholics have apparently not accomplished the purpose for which they were established I am unable

to justify at this time the substantial capital outlay and operating expense incident to the establishment of a farm-industrial type institution in Virginia. Since there is no unanimity of expert opinion upon this point it is my suggestion that the problem be made the subject of study and research under that part of the program set forth in the report with which I am in complete accord. It is far better to delay the establishment of such a special institution, pending further study than to risk an ill-advised and expensive mistake which might later prejudice the financing of the entire rehabilitation

program."

8-9-10. "Provision for imposition of . . . sentence of commitment" . . . "Persons receiving treatment . . . should be required to pay in so far as" . . . "The revenue for the program should be derived by imposing a tax," etc. The Committee does not feel that such provisions lie within the province of medicine, but are essentially legal and political problems.

M. MORRIS PINCKNEY, M.D., *Chairman*

R. COLEMAN LONGAN, M.D.

W. T. THOMPSON, M.D.

"Castile" Changes Meaning.

Castile soap, once the aristocrat of soap, isn't what it used to be, according to an article in the February Today's Health, published by the American Medical Association.

Once "castile" meant a soap in which the fat content was 100 per cent olive oil. Now it may mean just about any bland white soap.

Mrs. Veronica L. Conley, secretary of the A.M.A.'s committee on cosmetics, said, "At the present time, there are no standards for the composition of castile soap, the method by which it is made or the color or any other characteristic of the finished product." Originally olive oil castile soap served a useful and important purpose, but with the development of improved soap-making processes, its usefulness has been lost and its name "distorted."

Castile soap was developed in the eighth century in the Spanish province of Castile, where there was an abundant supply of olive oil. For several hundred years the demand for soap was "astonishingly low," with castile soap being used as frequently for cosmetics and salves as for washing.

By the 19th century the demand for soap was greatly increased and its manufacture was largely a household task. With unskilled hands and crude

methods, many of these soaps were harsh and irritated the skin. By comparison castile soap had a much higher standard of quality. But as new processes were developed and soap could be made in larger quantities, more economically, and milder, castile soap began to lose its importance.

However, the name castile, which implies purity and mildness, had far too much sales value to be permitted to fall into disuse and manufacturers began selling soap which contained little or no olive oil under the name castile. This precipitated a legal battle.

There were, and still are, three schools of thought: 1. that castile soap should continue to mean what it had since the eighth century—a soap containing only olive oil; 2. that it should contain olive oil as its main ingredient, but other oils could be included; 3. that any bland white soap is a castile soap.

"After years in the courts, the term castile on a soap wrapper ended up just about meaningless . . . the continued use of this meaningless term adds to the confusion of the consumer concerning cleaning agents in general."

Many manufacturers now add a note to the wrapper if olive oil is included in the soap.

Current Currents

1956 AMA DUES: Statements for 1956 membership dues in the American Medical Association were mailed March 1. It should be mentioned that AMA considers dues delinquent after June 1. This means that those planning to attend the AMA meeting in Chicago (June 11-15) should make certain that dues are paid far enough ahead to permit proper recording by AMA's Membership-Circulation Departments.

WHERE ARE WE GOING IN PUBLIC RELATIONS? This question will be answered during the 8th Annual Public Relations Conference of the Richmond Public Relations Association to be held at the Williamsburg Lodge and Inn March 15-16.

At 2:30 on March 15, representatives of agriculture, medicine, labor and industry will discuss public relations in their respective fields. Panel members will be Parke C. Brinkley, Commissioner of Agriculture; Dr. Harry C. Bates, Jr., Chairman, Public Relations Committee, The Medical Society of Virginia; Edmond M. Boggs, Commissioner of Labor and Industry; and Robert K. Heimann, Executive Assistant, American Tobacco Company.

Physicians, especially those in the Tidewater area, are urged to attend this Conference if at all possible.

90-MINUTE TV PROGRAM ON MENTAL HEALTH: A bulletin from AMA announces that a deeply-moving, 90-minute drama penetrating the world of mental patients will be broadcast over the CBS Television network between 5 and 6:30 p.m., EST, on Sunday, March 18. This will be the longest show of its kind ever offered to television viewers.

Entitled "Out of Darkness", the program is being produced by CBS in consultation with the American Psychiatric Association and the National Association for Mental Health. The program is aimed at focusing public attention on the subject of mental illness and mental hospitals, and will depict the nature of mental illness, its causes and treatment. It will also demonstrate the dramatic evidence of medical progress in this field.

"Out of Darkness" will spotlight several individual cases, among them the story of a young married woman who is victim of acute mental illness. The cameras will follow her actual day-to-day progress over a four-month period.

HATS OFF this month to Dr. Henry B. Mulholland, Charlottesville, who was recently presented a distinguished service certificate by the Virginia Council on Health and Medical Care. Dr. Mulholland was one of the leading organizers of the Council in 1946, and served as its first chairman for 1946-1950.

CRASH INJURY STUDY: Physicians in Norfolk and Princess Anne Counties are now cooperating with the special study of auto crash injuries being carried on by the Cornell University Medical School, the State Department of Health and the State Police. This is the fourth area in the State in which the study has been conducted and results have been most gratifying.

A special study of accidents involving 1956 model automobiles is underway in the counties of Accomack, Isle of Wight, Southampton and Surry. This study will permit a realistic assessment of the effectiveness of present safety engineering.

THE LATEST ON HILL-BURTON: A recent report from the Department of Health, Education and Welfare contains the following information on Hill-Burton grants in Virginia:

New Projects Approved: Norfolk General Hospital—estimated total cost \$3,527,000 with an approved federal share of \$1,758,500. This project will provide 164 additional beds.

Approved, But Not Yet Under Construction (including above): Five projects at a total cost of \$6,483,393, including \$3,210,000 federal contribution and designed to supply 312 additional beds.

Under Construction: Twenty-five projects at a total cost of \$22,992,306, including federal contribution of \$8,598,927 and designed to supply 1342 additional beds.

Completed and in Operation: Thirty-two projects at a total cost of \$25,533,931, including federal contribution of \$9,527,479 and supplying 1234 additional beds.

MEDICAL RECORDS: A bulletin of the Joint Commission on Accreditation of Hospitals stresses the importance of medical records in the practice of medicine. It is brought out that they serve as a basis for planning patient care, as a means of communication between the physician and other professional groups contributing to the patient's care, as documentary evidence of the course of the patient's illness and treatment and as a basis for review, study, and evaluation of the medical care rendered the patient. For these reasons the Joint Commission on Accreditation of Hospitals considers the quality of medical records an important indication of the quality of patient care given in a hospital.

The bulletin states that since medical records reflect patient care, the Commission evaluates a medical record on the basis of whether or not it contains sufficient recorded information to justify the diagnosis and warrant the treatment and end results.

Should you wish a copy of the bulletin, which lists certain standards of record keeping considered essential, just write the State Office. We shall try to secure a copy for you.

Woman's Auxiliary

President-----Mrs. M. W. Glover, Arlington
President-Elect-----Mrs. Lee S. Liggan, Irvington
Vice President-----Mrs. Charles A. Easley, Danville
Mrs. C. C. Hatfield, Saltville
Mrs. John St. George, Portsmouth
Recording Secretary-----Mrs. J. R. Grinels, Richmond
Corresponding Secretary Mrs. Robert Detwiler, Arlington
Treasurer-----Mrs. William Grizzard, Petersburg
Publication Chairman
Mrs. William J. Weaver, Alexandria

Minutes of the Annual Meeting

The thirty-third annual meeting of the Woman's Auxiliary to The Medical Society of Virginia convened in the Empire Room, Hotel Jefferson, Richmond, on Tuesday, October 18, 1955, Mrs. Maynard R. Emlaw, President, of Richmond, presiding.

The meeting was called to order by the President, and the Invocation was given by Mrs. Hawes Campbell, after which the Auxiliary Pledge was repeated in unison. The Address of Welcome was given by Mrs. George H. Snead, President of the Richmond Auxiliary, followed by the Response from Mrs. Lee S. Liggan, of Irvington.

Motion was made, seconded, and carried, that delegates and members of the Convention sign at the door, and that roll call be dispensed with.

Motion was made that the reading of the minutes of the 1954 Convention be dispensed with and they be approved as read by the Reading Committee appointed at the 1954 Post-Convention Board meeting, the Committee being Mrs. J. W. Carney, Mrs. Thomas N. Hunnicutt, Jr., and Mrs. Barnes Gillespie. Motion carried.

The "In Memoriam" service was conducted by Mrs. Fletcher J. Wright, Sr., of Petersburg, for the following: Mrs. Blanton Seward, Mrs. Joseph R. Blalock, Mrs. Frances S. Noland, and Mrs. Louis Berlin.

Mrs. Emlaw presented our guests, Mrs. Robert Flanders, of Manchester, New Hampshire, President-Elect of the Woman's Auxiliary to the American Medical Association, and Mrs. Louis K. Hundley, of Pine Bluff, Arkansas, President of the Woman's Auxiliary to the Southern Medical Association.

Mrs. Emlaw, President, gave her annual report, after which a motion was made, seconded, and carried that the assembly give her a rising vote of thanks.

Reports of the other Auxiliary officers were then given. The Corresponding Secretary's report con-

tained a recommendation that in view of the large volume of work involved in handling routine correspondence, an additional person be appointed to take charge of the Card File which has thus far been the responsibility of the Corresponding Secretary. No action was taken.

The Treasurer reported a balance of \$1,715.99. This report was filed for audit.

Reports of Chairmen of Standing Committees, of Special Committees and of the County Presidents were next presented.

Mrs. Richard M. Reynolds gave a report on the Annual Convention of the Woman's Auxiliary to the American Medical Association, held in Atlantic City, June 6-10, 1955.

Mrs. R. Bruce Lawrence, Chairman of Registration, reported a total registration of 206 members.

Motion was made by Mrs. Kalford W. Howard that minutes of this meeting be approved by a Committee to be appointed by the President at the Post-Convention Board Meeting, and that they be published in the Virginia Medical Monthly. Motion was seconded and carried.

The following recommendations were made by the Board of Directors, read by the Recording Secretary, who moved adoption of the resolutions:

1. The Board of Directors of the Woman's Auxiliary to The Medical Society of Virginia recommends to the Woman's Auxiliary to the Southern Medical Association that further solicitation of funds for the Jane Todd Crawford Memorial project be dropped. Motion was seconded and carried.
2. The Board of Directors of the Woman's Auxiliary to The Medical Society of Virginia recommends to the Woman's Auxiliary to the Southern Medical Association that the accumulated funds of the Jane Todd Crawford Memorial project be devoted to the awarding of annual membership in the Southern Medical Association to Senior Residents in Gynecology. Motion was seconded and carried.

Motion was made that the Recording Secretary read proposed revisions to the Constitution and By-Laws because the Revisions Chairman, Mrs. John R. St. George, was unable to attend the Convention meeting. Motion carried.

A motion was made and seconded that in view of the fact that the Revisions had been sent to each member of the Executive Board and to each County

Auxiliary, they should be read through and then voted upon as a whole. Motion carried.

The Revisions were as follows:

Article III—Election of Officers: (changed to read:)

Sec. 6. Nominations shall be made by a Nominating Committee, one member to be appointed by the President, and two to be elected by the Board at the Post-Convention Board meeting. The Committee shall contact each component Auxiliary for possible nominees for officers. The slate shall be completed no later than June first and shall be sent to the President-Elect in order that she may be able to appoint her committee chairmen prior to the annual convention. Nominations may be made from the floor provided the consent of the nominee to serve, if elected, has been obtained.

Article IV—Duties of Officers:

Sec. 5. Add: She shall also serve as a member of the Finance Committee.

Article V—Standing Committees and their Duties:

Sec. 3. The Chairman of each of the above-named committees shall be appointed by the incoming president as soon as practicable after she assumes the duties of office, except that the President-Elect shall serve as Chairman of the Organization Committee and the First Vice-President shall be Chairman of the Program Committee. The Chairman of each Standing Committee, subject to the approval of the President, shall select the members of her committee.

Sec. 11. (a) The Finance Committee shall be composed of four members, the Treasurer, the President-Elect and two members appointed by the President. It shall prepare a Budget for the fiscal year which shall be presented to the Pre-Convention Board and voted on at the General Meeting of the organization.

Article VI—Convention

Sec. 3. (d) All Members-at-Large shall be delegates to the Convention. The President shall appoint one Member-at-Large to be chairman of Members-at-Large and she shall serve on the Board of Directors.

The Recording Secretary moved the adoption of the foregoing revisions to the Constitution and By-Laws. Motion was seconded and carried.

Mrs. Robert D. Keeling read the Courtesy Resolutions and moved their adoption. The motion was seconded and carried. The Courtesy Resolutions follow:

WHEREAS, The Woman's Auxiliary to The Medical Society of Virginia, in Convention assembled, has been the recipient of many courtesies; therefore be it

RESOLVED, That The Medical Society of Virginia and Dr. Charles L. Outland, Chairman of the Advisory Council, be commended for their cooperation and energies extended for the integration and progress of our work during the year, and that tribute be extended and thanks be given to The Medical Society of Virginia for cardinal courtesies given to us during this, the thirty-third Annual Meeting of the Woman's Auxiliary to The Medical Society of Virginia, held in Richmond, Virginia, October 16 to 19, 1955, and be it

RESOLVED, That The Woman's Auxiliary to The Medical Society of Virginia project its sincere appreciation to all

of the following who individually and collectively are largely responsible for making this meeting a memorable occasion.

1—To the Chairman of Arrangements, Mrs. J. R. Grinels, and her Co-Chairman, Mrs. George H. Snead.

2—To Mrs. Robert Flanders, President-Elect of The Woman's Auxiliary to The American Medical Association.

3—To Mrs. Louis K. Hundley, President of The Woman's Auxiliary to The Southern Medical Association.

4—To the management of The Hotel Jefferson.

5—To A. H. Robins Drug Company for the sherry for luncheon

To Charles C. Haskell Company for the luncheon favors

To Richmond Surgical Supply Company for flower arrangements for the luncheon table

To Van Pelt & Brown for the hand lotion

To Philip Morris & Company for the cigarettes

To Miller & Rhoads, Inc., for the Fashion Show

and to every member of the Richmond committee whose effectual planning and execution of detail have made this Convention successful, and especially do we extend our heartfelt appreciation and affection to *our* President, Mrs. Maynard R. Emlaw, whose enobling expressions of good judgment in her appointments, her undeniable capacity for gracious presiding, and her inspiring leadership, have made *her* administration outstanding. To all who have contributed so generously, thank you, and be it further

RESOLVED, That a copy of this resolution be spread upon the minutes of the Auxiliary and letters be written to each individual and organizations mentioned in this resolution to express our sincere thanks.

Mrs. Kalford W. Howard, Chairman of the Nominating Committee read the slate of officers as selected by the Nominating Committee. Opportunity was given for nominations from the floor. There being none, motion was made and seconded that the nominations be closed. Motion carried. The slate was then voted on as a whole and officers were declared elected as presented by the Nominating Committee. The slate of officers follows:

President—Mrs. Mervin W. Glover, Arlington

President-Elect—Mrs. Lee S. Liggan, Irvington

First Vice-President—Mrs. Charles A. Easley, Danville

Second Vice-President—Mrs. C. C. Hatfield, Saltville

Third Vice-President—Mrs. John R. St. George, Portsmouth

Recording Secretary—Mrs. James R. Grinels, Richmond

Corresponding Secretary—Mrs. Robert H. Detwiler, Arlington

Treasurer—Mrs. William S. Grizzard, Petersburg

Directors—Mrs. Maynard R. Emlaw, Richmond
Mrs. Kalford W. Howard, Portsmouth
Mrs. J. L. DeCormis, Accomac

The meeting was recessed at 11:45 a.m., to reconvene at the Inaugural Luncheon at the Commonwealth Club at 12:30 p.m.

The Inaugural Luncheon meeting was called to order by the President and the Invocation given by Mrs. Hawes Campbell. Following luncheon, talks were given by Mrs. Robert Flanders, President-Elect of the Woman's Auxiliary to the American Medical Association, and by Mrs. Louis K. Hundley, President of the Woman's Auxiliary to the Southern Medical Association.

The new officers for the 1955-56 term were then installed by Mrs. Flanders and the President's Pin and gavel were presented to Mrs. Glover by the outgoing President, Mrs. Emlaw. Mrs. Kalford Howard presented the Past President's pin to Mrs. Emlaw, with appropriate remarks.

The new President, Mrs. Glover, made a short talk of acceptance of office.

A beautiful Fashion Show was then presented by Miller & Rhoads, following which the Thirty-Third Annual Meeting of the Woman's Auxiliary to The Medical Society was adjourned.

EDNA CARNEY, *Recording Secretary*
(Mrs. J. W.)

Reading Committee

ELIZABETH BARR (Mrs. Wm. C.)
LUCIA EMLAW (Mrs. Maynard R.)
ALMA GRINELS (Mrs. James R.)

One of Those Days in Arlington.

DEAR MRS. WEAVER:

I was so glad that your card announcing that publicity for the Auxiliary was due, arrived on a Wednesday. Wednesday is my "easy" day—specifically speaking, the day on which the house is clean, washing done, i.e. when I'm caught up—and I thought I would just sit down and inform our readers of the many interesting meetings the Arlington chapter has been having. For instance, just last month, Mrs. Paul Smith not only gave us an informative talk on antique glass but carried innumerable fascinating examples to show. I really wanted to expound on this subject a good bit in the news item but Wednesday unfortunately turned out to be as any other day.

I had just ensconced myself with typewriter preparatory to fully advising the public in re our activities when the 'phone broke loose. Often I ignore it but after counting idly twenty-one rings I decided someone really wanted me. They did. It was the school nurse informing me that our number two

boy had been pushed, fallen, clobbered, in short, battered up a bit and looked as though a stitch here and there would do no harm. I'm no alarmist, so I fed the number four boy and left number three in charge of him while I hied off to pick up number two for the suturing job. Even to the untrained, meaning me, something was indicated so we "peeled" for the hospital. Now, we enjoy a sort of priority at this edifice—not because I'm a doctors' wife—but we were beating on the doors of the emergency room as they completed laying the cornerstone for the building and I expect unless things slow up around here we may be the ones to close it—so it didn't take too long. I arrived back home slightly unhinged from my recent encounter only to find the number three boy had taken off with a friend but before going had thoughtfully let in the furnace repair men who had just come to install a humidifier and told them they could baby sit. Since they hadn't objected, I didn't feel I should be upset. However, they, in turn, had opened the door to the man who repairs antique clocks and he had the living room clock chiming cheerfully—synchronizing rather neatly I thought with the tintinnabulation emanating from the pounding of the furnace. Time was fugiting as only fugitive time can and the four o'clock deadline was approaching when I must clamber abroad and take the number one boy to his music lesson, after first stashing my casserole supper in the oven and setting the timer for an automatic dinner. Husbandry I've always maintained is no real problem for the efficient. (I know you think housewifery is the term I want in lieu of husbandry but if you will consult a well known book that begins with a W and ends with dictionary, you will find the term applicable.) So I collected the number one boy, also three and four, having first located and instructed the number one (and only) girl to stay where she was *at* until I returned. Number one forgot his music so I returned rather sooner than anticipated and that threw everyone out of kilter. I had by that time rid the house of all extraneous baby sitters. Accomplished mission finally and returned home wearily at five thirty fully expecting to be greeted by the redolent smell of the casserole. Not so—I had done everything but turn on the oven.

Poignantly aware of my sin of omission in not sending the publicity, I thought, "Well, there is still tonight—" but that Mrs. W. is another story.

I understand it is my duty to inform you as to who is currently propagating. In this I fail miserably. I see circumstantial evidence all around me but apparently it just fades away and I hear no

more.

I didn't want you to think me completely remiss in my duties but the above while it perhaps does not justify my omission, at least will explain it.

Hope you are not the same—

MILLIE OSTERGARD.

P. S. I did want to tell you that the Auxiliary did rather successfully sponsor the T. B. Handicraft sale held for four days the first part of December. The articles for sale are handmade by shut-ins and handicapped patients in Virginia sanitariums, as well as by "home-bound" patients. Mrs. Lee Martin was responsible for it this year and did an excellent job.

And the money received from the sale of the article is turned over directly to the individual who made it.

June Glover, our State President, is off to the hinterlands to speak at several meetings. Just why or where I never did quite glean because she tossed it out over the bridge table just as I was verging on a small slam and I felt it was simply a dispicable attempt to distract me.

PPS. I might as well have picked up all facts—I didn't make the slam anyway.

Old Belt.

The Auxiliary to the Old Belt Medical Society was addressed by Dr. Paul D. Camp of Richmond, and by Mr. James Meacham, field representative of the Virginia Heart Association at its meeting in Lawrenceville, January 24. The Auxiliary and the Old Belt Medical Society met jointly at dinner, preceded by a social hour in the home of Dr. and Mrs. E. M. Bane.

The following officers were re-elected for 1956: President, Mrs. Robert Keeling, South Hill; Vice-President, Mrs. Earl Bane, Lawrenceville; Secretary, Mrs. E. J. Kiember, Alberta, and Treasurer, Mrs. J. L. Northington, South Hill.

Mrs. Keeling announced the appointment of Mrs. F. J. Clements, South Hill, as Future Nurses Club chairman, and of Mrs. Altamont Bracey, South Hill, as Doctors' Day Chairman. Mrs. William J. Bishop, Lawrenceville, reported on the nursing scholarship offered by the Auxiliary, and Mrs. M. L. Lacy II, South Hill, served as chairman of the nominating committee. The Auxiliary will sponsor Heart Sunday in Mecklenburg County.

ANNE G. BRAXTON

P. S. Born to Dr. and Mrs. Howard Tucker,

South Hill, a daughter, Betsy Carolyn, on January 14.

Richmond

The January meeting of the Auxiliary to the Richmond Academy of Medicine, took place on the 24th, at the Academy building. Our chairman of the day, Mrs. Maynard Emlaw, introduced our two "visiting dignitaries", Mrs. M. W. Glover, (state president) and Mrs. Lee S. Liggan, (state president-elect). Mrs. George Fultz was luncheon chairman, while Mrs. Frederick Finch arranged flowers. Although some business was brought up and a few yearly contributions were voted through, the greatest emphasis was placed on our approaching dinner dance, honoring Doctor's Day, to be held at the Commonwealth Club, on February 11th.

MARGARET M. MEADOR.

Northampton Accomac

The Auxiliary to the Northampton Accomac Medical Society, held its first meeting of the New Year on January 10th, at the home of Mrs. B. N. Mears, Belle Haven, with twenty two members and one guest present.

The president Mrs. Donald Fletcher introduced Mrs. George Turner, assistant director of nurses at the Northampton Accomac hospital. She spoke on the problem of nurse recruitment on the Eastern Shore, stating the great need for nurses and the many contributing factors for this shortage, as many graduates enter other fields such as Public Health nursing. The Eastern Shore is dependent on local high school graduates. A good three year course is offered, with doctors as experienced teachers lecturing. There is a closer contact between the doctors and nurses. The auxiliary was asked to help in the recruitment program.

Mrs. Milton Kellam announced Doctor's Day to be observed March 30th, with a party for the doctors and their wives at 'Windingdale', the home of Dr. and Mrs. Milton Kellam.

A motion was made and carried that the auxiliary adopt the nurse recruitment program for the coming year as a vital to the need of the Eastern Shore.

On January 17th, a cocktail party was given at the home of Dr. and Mrs. H. L. Denoon, Jr., and following that a dinner, given by the Staff of the Northampton Accomac Memorial Hospital at the Nurses' Home. Guest speaker at the dinner was Dr. Walter B. Martin.

CATHERINE R. TROWER.

Book Announcements . . .

Present-Day Psychology. An Original Survey of Departments, Branches, Methods, and Phases, including Clinical and Dynamic Psychology. Edited by A. A. ROBACK, With the Collaboration of Forty Experts in the Various Fields. Philosophical Library, New York. 1955. xiv-995. Cloth. Price \$12.00.

This symposium of 40 papers, written specifically for this book by competent and frequently prominent figures in their fields, attempts to survey the entire field of psychology. It is divided into 5 main sections, as follows: I. Topical Departments, that includes such classical division of the field as sensation, perception, cognitive processes, etc.; II. Branches of Psychology, that includes papers on the courses usually found in colleges, as child, adolescent, social, applied, etc., psychology, and even parapsychology; III. Dynamic and Clinical Psychology, that includes discussions on such topics as psychodiagnostics, projective techniques, psychotherapy, and others; IV. Methods, which includes a chapter on trends in statistics and a chapter on the problem of integrating the subject matter of psychology; and V. Psychological Borderlands and Humanistics, that includes such topics as psychology and religion, psycholinguistics and psychology and art, etc.

Where feasible the papers present the problem in its historical perspective, and almost all concentrate on present trends and significant current avenues of research. The style is of necessity compressed, and illustrative and explanatory detail omitted, yet the subject matter is neither watered down nor oversimplified, and each paper cites references and includes a comprehensive bibliography. Some topics are more intensely considered than others, but this emphasis is consistent with the areas of greatest interest in psychology, and it is possible to get an overall view of any particular area. There is some overlapping that is inherent in the selection of topics, and probably unavoidable in any collection. The general emphasis on current material and avenues of research would make this book particularly valuable to both professional workers and laymen whose systematic psychological training was "pre-war" since the post war era has brought so many changes in the level and scope of psychological thinking.

V. T. TINGLEY, M.D.

Pathology Seminars. By Lauren V. Ackerman, M.D., F.C.A.P.; Arthur C. Allen, M.D.; Colonel J. E. Ash, M.D., F.C.A.P.; Arthur Purdy Stout, M.D.; Rupert A. Willis, M.D., F.R.C.P. Edited by Robert S. Haukoil, M.S., M.D., F.C.A.P., Assistant Professor of Pathology, Marquette University School of Medicine, and W. A. D. Anderson, M.A., M.D., F.A.C.P., F.C.A.P., Professor of Pathology and Chairman of the Department of Pathology, University of Miami School of Medicine. St. Louis, The C. V. Mosby

Company. 1955. 195 pages. Illustrated. Cloth. Price \$10.00.

The publishers of this book have offered to the reader an unique opportunity of vicariously participating in a group of pathology seminars. These seminars were actually held at the Marquette University School of Medicine in Milwaukee, Wisconsin, and were conducted by outstanding pathologists, each an authority in his field. Admittedly the book has limited value, and is published for a limited group, namely pathologists exposed to the routine of surgical pathology. The lack of slides for personal study of these illustrative cases must also decrease to some extent the inherent value of this volume. Nevertheless to those unfortunate enough to have been unable to attend in person these Milwaukee seminars, the book may serve as a happy substitute.

The material includes six seminars each containing an average of 12 cases for which brief histories are supplied. Following the history, the pathologist conducting the seminar presents his views and his diagnosis. Most cases are accompanied by illustrations which emphasize the pertinent pathologic findings. After the diagnosis there are remarks by the audience, as well as a brief question and answer period. The book attempts to record as accurately as possible the actual dissertations and comments made, and retains an informal flavor and easy-to-read style throughout.

Dr. Allen's portion of the seminar is more didactic without attempting to discuss each individual slide in order. The reader is therefore given a short, valuable, though brief, review of dermato-pathology. Colonel Ash's section is particularly helpful to the pathologist who sees little nasal and laryngeal pathology, and whose knowledge of the histology of the upper respiratory tract has long been forgotten. This reviewer, however, would take issue with some of the remarks made concerning mixed tumors of the salivary gland type. Dr. Willis' section makes for especially enjoyable reading since his inimitable style permeates throughout the entire portion dealing with the cases assigned to him. This reviewer was particularly amused by the fact that Dr. Willis was given a case of a lesion which he doesn't believe exists! He avoided labeling a more or less obvious peritoneal mesothelioma by this name, by calling it a diffuse metastatic carcinoma of the abdomen. The acceptance of the criteria for mesothelioma laid down by Dr. Willis must be left to the individual reader.

SAUL KAY, M.D.

Half-Way Public Relations?

DOCTORS are usually friendly people—their stock in trade is making ill persons well—and their approach must be friendly or they defeat part of their purpose before they begin.

The regular patient who goes to the individual physician accepts him not only as a good physician but as a good personal friend. People like “their” doctor. But for some reason the same people may voice sentiments about “doctors” or “the medical profession” when talking to friends or when in public.

I’m not sure why this disparity of attitude exists. It may be because large organizations—such as the State Medical Society or the A.M.A.—have taken specific stands, publically, on certain health issues. If the arguments by “organized medicine” have been played up as discriminatory, or anti-public, or as favoring the doctors by the opposition, then the public may pick up that attitude against “doctors”, not necessarily interpreting it as applying to an *individual* doctor.

When your plumber comes to fix the water tank, you do not usually think of him as a member of the International Plumbers and Steamfitters Union. If a certain electrical union is accused of having Communist leanings, you do not think of the fellow wiring your new house as a Communist. These men are friendly, doing their everyday job to help you and others by their services.

What does this mean to us as doctors and as members of our State and National organizations? It means we have only done half of our job. We have convinced the public that, as individuals, we are good friends to have around. But as a group . . . perhaps the story is not so convincing.

Probably no single one of us agree with everything the A.M.A. or The Medical Society of Virginia says or does. An honest difference of opinion never hurt anybody, if properly handled. But let’s give credit where credit is due. Let’s not hesitate to tell our patients—lawyers, merchants, bricklayers, carpenters, plumbers, salesmen, and their wives and children—of the good things that have come from organized medicine . . . good things for them, as our patients.

The moral in this is obvious: **MAKE YOUR OFFICE EACH DAY A SOURCE OF GOOD PUBLIC RELATIONS FOR THE MEDICAL PROFESSION.**

HARRY C. BATES, JR., M.D.

Editor's Note: The President, Dr. James P. King, asked Dr. Bates, Chairman of the Public Relations Committee, to write the “President’s Message” for this issue.

"Belroi"

IT IS HOPED that the willingness of the Mid-Tidewater Medical Society to assume custodial care of "Belroi" will be the answer to a problem of many years standing.

The innocent cause of the difficulty is a modest three room house which a century ago served as the temporary parsonage for the Methodist minister in Gloucester. Here on September 13, 1851, Walter Reed, the discoverer of the cause of yellow fever, was born. We who have never known the meaning of an epidemic of yellow fever find it difficult to realize that this discovery is generally considered to have been America's greatest contribution to medicine.

The Medical Society of Virginia entered the picture in 1927 when it purchased "Belroi" and the immediate surrounding land for one thousand dollars. On October 15 of that year, in the presence of Dr. Reed's widow and children and several thousand persons, the building was dedicated as a shrine. The house, which was in bad repair when purchased, was restored by The Medical Society of Virginia and opened to the public.



"BELROI"
December 1955

From the first the care of the building presented problems. The cause of the difficulty lay in its rural location. It is situated a few miles east of Gloucester Court House on a secondary road in a sparsely settled region.

In no part of the New World is nature more kind or the struggle for existence less keen than in the Mobjack Bay country. This happy state of affairs is reflected by a disinclination of the local citizenry to engage in manual pursuits and even keeping the grass cut about the house proved difficult. In February 1953, Drs. H. A. Tabb and R. B. Bowles called the attention of the Mid-Tidewater Medical Society to the in-

creasing burden, labor and expense of caring for this property and suggested that the National Park Service which is located 12 miles away at Yorktown might take over management of "Belroi." When the National Park Service was approached the gift was declined. Efforts to interest the Walter Reed Memorial Association and the Walter Reed Medical Center were likewise unsuccessful. The future of "Belroi" was further clouded last year by the untimely death of Dr. Tabb who had always been most active in its behalf.

The suggestion has been made that it might be more sensible to tear down the house and erect a monument on the site. But this would not be the complete answer for while a granite marker would not have to be painted, plastered or repaired the grass would continue to grow about it and the problem of labor would remain. Many members of the Society, too, would regret a decision to destroy the little house and if maintenance at its present location proves insurmountable, its doll-like dimensions may permit it to be moved by truck to a larger community where its upkeep would be less of a problem.

Meanwhile The Medical Society of Virginia is indebted to the Mid-Tidewater Medical Society for undertaking the care of "Belroi" and wishes the custodial committee, under the chairmanship of Dr. Malcolm H. Harris, every success.

H.J.W.

Society Proceedings

Albemarle County Medical Society.

The following resolutions were adopted by the Albemarle County Medical Society at its meeting on January 5th:

WHEREAS 38,000 persons are killed annually by highway accidents and over a million suffer crippling injuries; and

WHEREAS this toll of death and injury can be sharply reduced if the people have the will to adopt, apply, and enforce reasonable restrictions on the use of motor vehicles; and

WHEREAS we warmly commend much of the legislation on this subject, including the use of radar in checking the speed of motor vehicles on Virginia highways, but we believe there is imperative need for strengthening Virginia laws and their application with respect to drunken driving, since 25.8% of the fatal accidents on the Virginia highways last year involved a drinking driver, and we believe there is imperative need for legislation national and state requiring of all manufacturers of automobiles that they meet such basic minimum safety requirements as may be reasonable established under appropriate governmental authority; it is

RESOLVED, that the Albemarle County Medical Society requests the Legislature of Virginia that the Code of Virginia be amended:

1. To provide that in any criminal prosecution for driving while under the influence of intoxicating liquor the accused or the Commonwealth shall have the right to a determination of the amount of alcohol in the blood

of the accused at the time of the alleged offense as shown by a chemical analysis of blood, breath or other bodily substance. Such determination shall be admissible in evidence together with any other competent evidence bearing upon the question of whether or not the defendant was under the influence of intoxicating liquor. It is suggested that to achieve this end the provisions of the Uniform Vehicle Code, Section 11—902 (b) 1, 2, 3, and 4 be adopted. Under these provisions —15% or more by weight of alcohol in the blood of the accused establishes a presumption of intoxication.

2. To provide for a mandatory jail sentence of at least 24 hours in all cases of conviction of driving while under the influence of intoxicating liquor.

3. To provide that approval of safety belts as used in motor vehicles be required as other safety equipment is required to be approved under Section 46—311 of the Code of Virginia.

And it is further

RESOLVED that the Albemarle County Medical Society requests the Senators and Representatives from the Commonwealth of Virginia in the Congress of the United States to initiate or support such a study as to them seems appropriate to determine minimal safety requirements for automobiles produced for use in interstate traffic in the United States.

Mid-Tidewater Medical Society.

At the meeting on January 24th, Dr. Carl Broadus, Newtown, was installed as president of this

Society. Dr. Malcolm Harris, West Point, continues as secretary-treasurer.

The following scientific program was presented: The Surgical Treatment of Malrotation of the Intestine by Dr. E. Meredith Aldrich, University, with the discussion led by Dr. Guy Horsley, Richmond; Recent Developments in the Surgical Treatment of Dissecting Aneurysms of the Aorta by Dr. Dean Warren, University, with the discussion led by Dr. Thomas N. P. Johns, Richmond; and A Discussion of Cardiac Irregularities by Dr. Julian Beckwith, University, with the discussion led by Dr. J. Morrison Hutcheson, Richmond.

The next meeting of this Society will be held on April 24th.

The Augusta County Medical Society,

At its January meeting, adopted a resolution calling for a crack-down on drunken driving. The resolution will ask the State to:

1. Make the drunkometer test a law and have it

accepted in court as evidence; 2. Impose a 24-hour jail sentence on guilty offenders; 3. Make mandatory safety belts and other safety devices in automobiles; and 4. Support a study of the minimum safety requirements for automobiles.

Williamsburg-James City.

Dr. Carlton C. Casey has been installed as president of this Society. Dr. Linwood Farley is vice-president and Dr. Ben T. Painter, secretary-treasurer. At the February meeting, the Use of Hypnosis in Dentistry was discussed and the speakers were Drs. A. G. Orphanidis, Newport News, and A. D. Dowdell, Eastern State Hospital.

Buchanan-Dickenson County Society.

At the December meeting of this Society, the following officers were elected for 1956; President, Dr. Bradley Berry; vice-president, Dr. Tom McDonald; and secretary-treasurer, Dr. James S. Richardson. All are from Grundy.

News

Calendar of Coming Events

VIRGINIA CHAPTER OF THE AMERICAN ACADEMY OF GENERAL PRACTICE—The Homestead, Hot Springs, Virginia—March 2-3-4.

SOUTHEASTERN SURGICAL CONFERENCE—John Marshall Hotel, Richmond, Virginia, March 12-15.

8TH ANNUAL AMERICAN ACADEMY OF GENERAL PRACTICE SCIENTIFIC ASSEMBLY—Amory, Washington, D.C.—March 19-22.

8TH ANNUAL CONVENTION—INTERNATIONAL ACADEMY OF PROCTOLOGY—Drake Hotel, Chicago, Illinois—April 23-26.

AMERICAN GOITER ASSOCIATION—Drake Hotel, Chicago, Illinois, May 3-5.

VIRGINIA SOCIETY OF OPHTHALMOLOGY AND OTOLARYNGOLOGY—Convention Cruise to Havana and Nassau (sailing from Norfolk)—May 26-June 2.

105TH AMERICAN MEDICAL ASSOCIATION ANNUAL MEETING—Palmer House, Chicago, Illinois—June 11-15.

Scientific Exhibits for Annual Meeting.

Applications may now be made for space at the annual meeting of The Medical Society of Virginia in Roanoke, October 14-17. These must be made on the forms furnished by the Society and may be obtained from Dr. Marcellus A. Johnson, III, 701 Carlton Terrace Building, Roanoke, Va.

Stoneburner Lectures.

The annual Stoneburner Lectures will be held at the Medical College of Virginia, Richmond, on the nights of March 21st and 22nd. The lecturer is to be Dr. Ernest W. Goodpasture, Scientific Director of the Department of Pathology at the Armed Forces Institute of Pathology, Walter Reed Army Medical

Center, Washington, D. C. During the days of the 22nd and 23rd, there will be a Symposium on Clinical Pathology.

Dr. Donald Shotton,

Lynchburg, was an invited guest on the program of the Southern Section, American Federation for Clinical Research, at its recent meeting in New Orleans.

Dr. R. M. Miskimon,

Richmond, has been named medical director of the Fidelity Bankers Life Insurance Corporation.

Southeastern Surgical Congress.

The Twenty-Fourth Annual Assembly of the Southeastern Surgical Congress is to be held in Richmond, March 12-15, at the John Marshall Hotel. Speakers for the Assembly are: Drs. Arthur H. Blakemore, New York; Alexander Brunschwig, New York; R. Lee Clark, Jr., Houston; Bradley L. Coley, New York; Frederick A. Collier, Ann Arbor; Denton A. Cooley, Houston; Irving S. Cooper, New York; W. L. Estes, Jr., Bethlehem, Pa.; Elmer Hess, President of the American Medical Association, Erie, Pa.; George A. Higgins, Kansas City, Mo.; J. William Hinton, M.D., New York; Henry A. Kingsbury, New York; Stanford W. Mulholland, Philadelphia; George T. Pack, New York; Robert A. Robinson and George Smith, Baltimore; James E. Thompson, New York; William Crawford White, New York; Robert M. Zollinger, Columbus, Ohio; C. E. Bickham, Jr., Washington; Frederick H. Bowen, Jacksonville, Fla.; H. H. Bradshaw, Winston-Salem; Bland W. Cannon, Memphis, Tenn.; Isidor Cohn, Jr., New Orleans; Donald S. Daniel, Richmond; Walter E. Daniel, Charlotte, N. C.; Harry L. Denoon, Jr., Nassawadox; W. Sterling Edwards, Birmingham, Ala.; William L. Garlick, Baltimore; James B. Holloway, Jr., Lexington, Ky.; Joe Sam Robinson, Jr., Atlanta, Ga.; D. L. Hosmer, Bluefield, W. Va.; Thomas N. P. Johns, Richmond; W. Nicholson Jones, Birmingham, Ala.; Nelson H. Kraeft, Tallahassee, Fla.; T. Kerr Laird, Montgomery, W. Va.; Howard Mahorner, New Orleans; J. D. Martin, Jr., Atlanta; Robert P. McBurney, Memphis; Austin T. Moore, Columbia, S. C.; Rudolph J. Noer, Louisville; D. J. Pessagno, Baltimore; Kenneth L. Pickrell and Nicholas Georgiade, Durham, N. C.; Thomas F. Puckett, Hattiesburg, Miss.; Julian K. Quattlebaum, Savannah, Ga.; William F. Rienhoff, Jr., Baltimore; Henry L. Rigdon, Florence, S. C.; Ambrose H. Storck, New Orleans; Donald Stubbs and Harry Lee Claud, Washington; George

E. Twente, Jackson, Miss.; Charles S. White and Charles S. White, Jr., Washington; George H. Yeager, Baltimore; and J. R. Young and Claud Perry, Anderson, S. C.

In addition to the above speakers, there will be panel discussions on Bones, Stomach, Colon and Blood Vessels.

The 150th Anniversary

Of the founding of the Medical Society of the County of New York will be celebrated in sesquicentennial event scheduled in April 1956, according to Gerald D. Dorman, M.D., President of the Society.

New York County, the Island of Manhattan, has the largest local medical society in the nation with 7,000 members. The Society was founded in 1806 when 102 physicians assembled on the steps of City Hall and publicly proclaimed the Society of physicians to exist. Its charter was then received from the State of New York. One of the forthcoming events of the Sesqui-Centennial will be to reenact this scene and rededicate the Society to the service of the citizens of New York.

Plans for the celebration include historical exhibits, programs in the scores of hospitals of the city on the newest clinical applications of medicine, open house and special exhibits in the five medical schools of New York, television and radio programs for the public on "New Horizons In Medicine" and special cancellation postmarks for all letters mailed in Manhattan during the event. A special anniversary seal has been created for use on all letters mailed by physicians and as a motor vehicle sticker on the cars of physicians.

William B. Rawls, M.D., a past-president of the Society, is General Chairman of the Anniversary event which will climax at a formal dinner for more than 1,000 persons at the Waldorf-Astoria Hotel on the evening of April 5, 1956.

Medico-Legal Workshop.

The Department of Legal Medicine of the Medical College of Virginia, the Chief Medical Examiner's Office and the Virginia Society of Pathology and Laboratory Medicine are sponsoring a Medico-Legal Workshop for Medical Examiners, Pathologists and other interested Physicians, on March 23, from 8:00 A.M. to 4:30 P.M., in the Amphitheater and Baruch Auditorium of the Medical College of Virginia, Richmond.

The Medical Examiners will go into all aspects of medico-legal investigation and will have a joint session with the Pathologists wherein obscure causes of death and special techniques will be discussed.

The Pathologists will have an opportunity of witnessing procedures and techniques of medico-legal autopsies on a wide variety of cadavers. Registration is limited.

For further information address inquiries to, Geoffrey T. Mann, M.D., LL.B., Chairman Department of Legal Medicine, Medical College of Virginia, Richmond, Virginia.

Dr. Robert V. Terrell,

Richmond, has been elected President of the Windsor Farms Association.

Dr. Philip Jacobson,

Petersburg, addressed the New York Academy of Medicine, New York, on January 25th, his subject being "Surgery of Bartholin Cyst Infections".

Medical Lectures at the University.

The spring series of Evening Medical Lectures began at the University of Virginia on February 20th. All lectures are held in the auditorium of the medical school at 8:00 P.M. Following are those to be held in March and April:

March 5th—Dr. John L. Patterson, Medical College of Virginia—Mechanisms of Adjustment of the Cerebral Circulation in Health and in Common Disease States.

March 12th—Dr. Charles A. Janeway, Harvard Medical School—The Gamma Globulins.

March 19th—Staige D. Blackford Memorial Lecture—Dr. Julian M. Ruffin, Duke University School of Medicine—The Use of Radioisotopes in the Study of Intestinal Absorption.

March 26th—Dr. Lester Dragstedt, University of Chicago—New Light on the Etiology of Gastric and Duodenal Ulcers.

April 5th—Dr. Harold L. Sheehan, University of Liverpool, Liverpool, England—Hypopituitarism.

April 9th—Nu Sigma Nu Lectureship—Dr. James H. Leatham, Rutgers University—Problems in Infertility.

April 16th—Phi Chi Lectureship—Dr. C. M. Pomerat, University of Texas Medical Branch—Tissue Culture in Experimental Biology and Medicine.

April 23rd—Phi Lambda Kappa Lectureship—Dr. A. Stone Freedberg, Beth Israel Hospital, Boston—Thyroid Function in Health and Disease; Recent Advances and Their Therapeutic Implications.

John Randolph Hospital Staff.

Dr. Samuel Gould has been elected as chief of the staff of the John Randolph Hospital, Hopewell, succeeding Dr. Clyde L. Saylor. Dr. Parker Moore

was named assistant chief of the staff and Dr. William P. Youngblood was reelected secretary.

The Jamestown Festival.

A year-long celebration of Jamestown's 350th anniversary is being planned for 1957. Some \$23,-000,000 in funds from all sources is being spent and a thrilling glimpse into the life of its founders, the first permanent English settlers of America, will be presented. There will be floating replicas of the three ships that brought Captain John Smith and the first settlers in 1607. The flagship *Susan Constant* is now being built in the West Norfolk shipyard. James Fort is being restored with its quaint thatched shelters and visitors will see the great "glasshouse" of 1608, where the settlers manufactured glass in what is believed to be English America's first skilled industry. Glass blowers in 17th century dress will fashion souvenirs at the furnaces.

The Festival will be State-wide as well as year-long. Events in the realm of drama, pageantry, restoration, music and art will be held during the year in dozens of Virginia communities. The height of the Festival will take place in the months of fine weather beginning about April 1st. There will be daily pageantry in the Jamestown-Williamsburg-Yorktown area. At Williamsburg a new symphonic drama by the playwright Paul Green, with seventeenth century Jamestown as its setting, will replace "The Common Glory".

All roads will lead to Jamestown in 1957 and our readers will be informed from time to time as to the progress of the "Festival".

Dr. Richard W. Fowlkes,

Richmond, has been elected as president of the Commonwealth Club.

Post-Graduate Day Program.

The staff of the Roanoke Memorial Hospital, Roanoke, will hold its Seventh Annual Post-Graduate Day Program on March 21st at the Hotel Roanoke. Registration will begin at 1:00 P.M., and the program is as follows:

Bronchography and Abdominal Aortography by Dr. Benjamin Felson, Professor and Chairman of the Department of Radiology, Cincinnati General Hospital and University of Cincinnati School of Medicine.

Clinical-Pathological Conference with Dr. Thomas H. Hunter, Dean of the University of Virginia School of Medicine as Clinician, and Dr. David E. Smith, Professor of Pathology at the University, as Pathologist.

Panel Discussion on Gallbladder Disease with Dr. David M. Hume, Boston, as moderator, and Drs. Felson, Hunter and Smith as panel members.

Following the afternoon session, there will be a social hour and banquet. The night session will be addressed by Dr. Hume, his subject being The Use of Steroids in Surgical Practice.

Physicians in the Roanoke and Southwestern area are cordially invited to attend as guests of the Medical Staff of the Roanoke Memorial Hospital.

Dr. R. D. Garcin, Jr.,

Announces the removal of his offices to 2124 Fairmont Avenue.

Eli Lilly and Company

Is spending nearly \$6,000,000 for improvements in its tablet and capsule plants.

The Board of Directors has approved the expenditure of \$2,290,000 for the complete remodeling of the tablet manufacturing and finishing departments.

This spring the company will complete a project for replacing sixty-eight older capsule machines with twenty-two Colton machines. Each Colton machine produces four times as many capsules as the type of machine it replaces. The cost of this project runs around \$3,500,000.

The tablet plant improvements call for the renovation of the third and fourth floors of one building and the construction of a new building to house the refrigeration equipment and cooling towers for the air-conditioning system. Full tablet production will be maintained throughout the change-over period.

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Doctor's office, suitable for pediatrician or general practitioner. Located in Richmond. Write #75, care of the Monthly, P. O. Box 5085, Richmond 20, Virginia. (*Adv.*)

For Sale.

Portable x-ray unit with complete accessories. Price reasonable. Call or write Dr. James D. Beaton, P. O. Box 368, Gretna, Virginia. Phone—3341. (*Adv.*)

For Sale.

Suburban properties, Homes and Timberlands, located in the vicinity of Richmond and Hopewell. Sound investment opportunities. Call or write W. L. Broadus, phone 844, P. O. Box 479, Hopewell, Va. (*Adv.*)

For Sale.

Hospital-Clinic. Yes, it is most unusual to find one on the market, but due to circumstances this one must be sold. Here is a grand opportunity for two general practitioners not only to make a lot of money but to render a great service to this community. This hospital has ten rooms, plus very modern living quarters, brick construction, with beautifully landscaped 2 acre tract, and just about every type equipment you would need, which is practically new. It is available at a sacrifice of \$85,000.00. Financing can be arranged. Contract realtors L. L. Jonas and J. Hunter Roberts, associated with the firm of Jno. H. Windel, Inc., 34 W. Kirk Avenue, Roanoke, Va. Phone 3-2478. (*Adv.*)

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Obituaries

Dr. Charles Mundy Edwards,

Veteran physician of Richmond, died February 3rd, following a short illness. He was eighty years of age and a graduate of the former University College of Medicine in 1896. Dr. Edwards was the son of Dr. Landon Brame Edwards, one of the founders of the present Medical Society of Virginia and the original owner of the Virginia Medical Monthly. He was the brother of Agnes V. Edwards, former executive secretary and managing editor. Dr. Edwards had always been closely connected with the Virginia Medical Monthly, serving as its managing editor for many years, and correcting and editing its medical papers to the time of his death.

During World War I, Dr. Edwards served as a Captain in the U. S. Army Medical Corps and was chief of the physical therapy department at Ft. Riley, Kansas. After the war, he returned to Richmond where he engaged in general practice.

Dr. Edwards was a Life Member of The Medical Society of Virginia, having joined in 1896.

His wife, a son and two grandsons survive him.

Dr. Emily Gardner,

Prominent Richmond pediatrician, died January 23rd, having been in ill health for some months. She was a native of Franklin and fifty-six years of age. She graduated from the Woman's Medical College of Pennsylvania in 1922. Dr. Gardner was the first woman to head the Richmond Board of Health and was serving her third term and tenth year on the Board. She was also a member of the State Board of Medical Examiners and had served as president of the Richmond Tuberculosis Association. In 1950, Dr. Gardner was named chairman of a new medical advisory committee of the Richmond Chapter of the National Foundation for Infantile Paralysis. She was also chairman of the co-ordinating committee on crippled children's services of the Virginia Council on Health and Medical Care.

For more than twenty years, Dr. Gardner had served on the staff of the Salvation Army's Evangeline Booth Home and Hospital. She taught at the Medical College of Virginia and the Richmond Professional Institute.

Dr. Gardner was a former vice-president of the Richmond Academy of Medicine. She has been an active member of The Medical Society of Virginia

since 1924 and served on the Committee on Child Health.

A brother and a sister survive her.

Dr. John Armstrong Shackelford,

Prominent Martinsville surgeon, died February 14th, having been in ill health for some time. He was sixty-one years of age and a graduate of Johns Hopkins Medical School in 1920. Dr. Shackelford was the Dean of the Patrick Henry Medical Society and served that organization several years as president. He was a director of Bassett Furniture Industries and the First National Bank. Dr. Shackelford was a charter member of the Martinsville Rotary Club. He has been a member of The Medical Society of Virginia for thirty-two years.

His wife and four daughters survive him.

Dr. James H. Dunkley,

Well known Roanoke physician, died February 6th after a long illness. He was eighty-six years of age and a graduate of the College of Physicians and Surgeons, Baltimore, in 1892. Dr. Dunkley was medical director of the Shenandoah Life Insurance Company for twenty-five years, retiring about fifteen years ago. He had been practicing in Roanoke since 1912. Dr. Dunkley was a Life Member of The Medical Society of Virginia, having joined in 1901.

His wife survives him.

Dr. McDowell.

On December 12, 1876, in Eufala, Alabama, Dr. William Patton McDowell was born, and here the earlier years of his life were spent. He was the son of Charles Samuel and Margaret McKay McDowell.

After completion of his primary education in the public schools of Eufala he entered the medical department of the University of Alabama, from which, in April 1900, he graduated with the degree of M.D., following which, in 1902, he did post-graduate work in New York Polyclinic Hospital. In 1904 and 1905 he served substitute internships at New York Childrens' and Roosevelt Hospitals. He then returned to his native community and there for six years engaged in the practice of general medicine. In 1911 he removed to Norfolk, where for six more years he continued general practice. At this time, choosing pediatrics as the field of his life work, at Harvard University, he took a post-graduate course in that branch of medicine, including an internship in the pediatric service at Massachusetts General Hospital. Returning to Norfolk he engaged in this specialty for which he was so admirably fitted and followed it with such skill and diligence that his career will live in the

memory of a host of those who observed and profited by his work.

Dr. McDowell was a member of the Norfolk County Medical Society in which for several years he held the office of Secretary, and as President in 1933-34. Also he was a member of the American Medical Association, the American Academy of Pediatrics, The Medical Society of Virginia, and the Virginia Pediatric Society, of which he served one year as President.

He was a licentiate of the American Board of Pediatrics. From 1914 until 1946 he was Chief of Staff of the Kings Daughters Children's Clinic. He was a member of the First Presbyterian Church and a member of the Board of Elders of this church.

In 1906 Dr. McDowell was married to Miss Nealie Silvester of Norfolk and from this union there are two children—Mrs. Cornelia McD. Woodley and William P. McDowell, Jr.

After the death of Mrs. Nealie S. McDowell, he married Mrs. Loula Dean Reese of Alabama, who died in 1946.

Dr. McDowell died at 9:30 P.M. on December 30th—while apparently in good health he was found sitting in his favorite chair, dead, with his magazines and papers around him.

With his delightful personality he drew to himself a host of sorrowing friends, especially those members of the Norfolk County Medical Society who had known him long and intimately.

THEREFORE, BE IT RESOLVED, That in the death of Dr. McDowell, this Society has lost a valued and much beloved member, and

BE IT FURTHER RESOLVED, That a copy of these Resolutions be incorporated in the records of the Society, and also a copy sent to the bereaved family, and one to the Virginia Medical Monthly.

NICHOLAS G. WILSON, M.D.,
Committee.

Dr. Kruger.

Dr. Alfred Leon Kruger was born in Norfolk, on February 16, 1911. After completing his preliminary education in the schools of this city he entered the University of Virginia in 1928 where he received his Bac-

calaureate degree in 1932 and his Doctorate in Medicine in 1935.

His formal training in internal medicine was received at the Jersey City Medical Center but included postgraduate courses in New York City and in Baltimore. After his internship and a fellowship in radiology he served as resident in diseases of the chest in the Berthold Pollak Hospital for Chest Diseases, a unit of the Jersey City Medical Center.

Dr. Kruger entered the Army Air Force Medical Service in 1942 with the rank of 1st Lieutenant and served as chief of respiratory disease section at Keesler Field. He had attained the rank of Major in the Medical Corps at the time of his separation from service in 1946.

He returned to Norfolk in 1946 to enter the practice of internal medicine with particular emphasis on diseases of the chest. In addition to a large private practice he was active in clinic work in hospitals in this city and served as senior attending physician at Norfolk General and DePaul Hospitals. At Norfolk General he was Chief of the Thoracic Disease section. He sought at all times to improve the caliber of treatment afforded patients with tuberculosis in the Tidewater area.

Dr. Kruger was an able and respected teacher and enjoyed transmitting to others the fruits of his knowledge and experience in his chosen field. He will long be remembered by those who came under his influence.

Despite an attack of coronary thrombosis in 1954 he returned to his practice and teaching with his accustomed vigor and energy.

Dr. Alfred L. Kruger suffered a second coronary thrombosis on November 16th, 1955 and passed away suddenly on the morning of December 25th, 1955.

With a deep sense of appreciation for the contributions which Dr. Kruger made to this community and reflecting the affection and respect of his colleagues it is recommended that this resolution be incorporated in the minutes of the Norfolk County Medical Society and that a copy be presented to his family.

BERNARD LIDMAN, M.D.
WILLIAM P. SELLERS, M.D.
WILLIAM S. HOTCHKISS, M.D.

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(Founded by Landon B. Edwards, M. D., April 1874)

PUBLISHED MONTHLY BY THE MEDICAL SOCIETY OF VIRGINIA

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1105 West Franklin Street

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Annual Subscription—\$2.00

Single Copies—25¢

TABLE OF CONTENTS

GUEST EDITORIAL

Poliomyelitis Vaccine, 1956—G. Foard McGinnes, M.D. 141

ORIGINAL ARTICLES

Deafness Due to Otosclerosis—Cary N. Moon, Jr., M.D.
and Fletcher D. Woodward, M.D.----- 143

The Degenerative Disc Syndrome of the Low Back—
Allen M. Ferry, M.D.----- 146

Adrenal Gland Pathology—Austin I. Dodson, Jr., M.D.--- 151

Sheean's Syndrome—Milton Ende, M.D. and
Mark E. Holt, Jr., M.D.----- 155

Hernia Through the Foramen of Winslow—
James S. Berger, M.D., F.A.C.S. and Ivan Packer, M.D. 158

Esophageal Obstruction by Aneurysm of Lower Thoracic
Aorta—Harold Goodman, M.D. and Felix Feraru, M.D. 161

MENTAL HEALTH

Who Are the Patients in Our Mental Hospitals?----- 164

PUBLIC HEALTH

Present Status of Prophylaxis for Rheumatic Fever----- 166

THE MEDICAL SOCIETY OF VIRGINIA----- 168

BOOK ANNOUNCEMENTS ----- 171

WOMAN'S AUXILIARY ----- 173

PRESIDENT'S MESSAGE ----- 176

EDITORIAL

The Case Report----- 177

An Everyday Discourtesy----- 177

SOCIETY PROCEEDINGS ----- 178

NEWS ----- 179

OBITUARIES ----- 181

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INDEX TO ADVERTISERS—Page 54

... get well



PARKE, DAVIS & COMPANY DETROIT, MICHIGAN

Guest Editorial

Poliomyelitis Vaccine, 1956

THE goal of control of paralytic poliomyelitis is now clearly in sight, provided principally that the full cooperation of the medical profession is extended in seeing that available supplies of poliomyelitis vaccine are used up to the full limit of their availability.

It is now estimated that enough Salk vaccine will be prepared and released for use before July 1, 1956 to provide one or two injections for 35 million individuals. But the task of getting this many injections completed before the next polio season is one of heroic proportions.

In future years immunization against poliomyelitis will doubtless become a standard practice of preventive medicine and be undertaken along with other pediatric injections beginning in the second six months of life.

The situation for this year, 1956, and possibly for 1957, must be viewed in a somewhat different light. The evidence has now accumulated that the present Salk vaccine is a perfectly safe highly effective agent for the prevention of paralytic poliomyelitis. Its usefulness in the immediate future, therefore, depends upon how many children and pregnant women are actually injected with it.

The magnitude of the problem, and the time factor involved, may justify considering 1956 vaccination programs as medical emergencies and dealing with them on that basis. It must be recognized that the time factor is more urgent in this State, Virginia, than it is in, say, Maine and other Northern states where the rise in the incidence of reported poliomyelitis comes later in the year than it does in the Southern states.

The present situation, which will become more acute in the public mind as the polio season approaches, offers a magnificent opportunity for cooperative effort between private physicians, public health authority and the public which will demonstrate the profession's great and organized interest in the health of the people. Any actions or statements, however justified, that appear to run contrary to this interest are to be deplored.

The past history of the profession's cooperation in the demonstration of poliomyelitis vaccine's effectiveness gives every reason to believe that cooperation will be forthcoming in reducing the threat of paralytic poliomyelitis to children of Virginia this year.

The present evidence of the effectiveness of the Salk vaccine, based on conditions of use in 1955, when most children received only one injection, indicates that it is about 80% effective in preventing paralytic poliomyelitis. An even higher percentage of effectiveness may be expected when children and pregnant women have received "full immunization" schedules of dosage.

The ideal recommended dosage schedule is two 1 cc. injections, intramuscularly, spaced two to six weeks apart, with a third booster injection being given at least seven months later. The vaccine does not "take" at the first inoculation in approximately 20% of the children injected. For most of them a second injection provides the essential primary sensitization. The longer (at least up to a year) that the subsequent injection is delayed after the primary sensitization has been achieved, the more effective it will generally be in raising antibody levels.

A compromise with the ideal dosage schedule may be made in 1956 to the extent that booster shots be delayed until after the 1956 polio season and that second injections be postponed until those requesting first injections have been taken care of.

Physicians are urged to give poliomyelitis vaccination now to the full extent that supplies of vaccine become available to them.

G. FOARD MCGINNES, M.D.

Editor's Note: Dr. McGinnes is Medical Consultant of the National Foundation for Infantile Paralysis.

April is Cancer Month

Why a regular physical check-up? Because it's the best way to find out whether anything, including cancer—is wrong with you.

Semi-annual chest x-rays for men over 45 offer the best means of early detection of lung cancer. Only one lung cancer case in 20 is cured today. Ten out of 20 could be saved if diagnosis were made early enough.

Only a doctor can diagnose cancer. But knowledge of cancer's seven danger signals can take you to the doctor in time for the best chance for cure.

Scientists working under American Cancer Society grants are seeking drugs to cure cancer. At present, the only approved cures for cancer are surgery, x-ray, and radium.

Pain is not an early symptom of cancer which often strikes without warning. Doctors can detect early unsuspected cancers in the course of a regular health examination, your best insurance against cancer.

More than 400,000 Americans now living are proof that cancer can be cured. Guard your health by having regular health examinations.

Cancer's "Seven Danger Signals"—1. Any sore that does not heal. 2. A lump or thickening in the breast or elsewhere. 3. Unusual bleeding or discharge. 4. Any change in a wart or mole. 5. Persistent indigestion or difficulty in swallowing. 6. Persistent hoarseness or cough. 7. Any change in normal bowel habits.

Deafness Due to Otosclerosis

Results Obtained by Operation Upon 100 Consecutive Cases

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A STUDY of 100 consecutive fenestrations was undertaken by Dr. Fletcher D. Woodward and me for the following two purposes: one, to satisfy our natural interest in the overall results as a basis of comparison with results of other otologists, and, two, to establish our base line of comparison to the results obtained by mobilization of the stapes as advocated by Rosen and others.

The procedure of making a fenestra in the horizontal semi-circular canal is done primarily on patients with a conduction type deafness secondary to otosclerosis. Otosclerosis is a condition found principally in young white adults, especially women. The condition is more frequently familial and is generally progressive. A low-pitched roaring tinnitus is present. The pathologic changes occur primarily as spongy areas in the bony capsule surrounding the membranous labyrinth, and the lesions are similar to Paget's disease. The disease is usually bilateral and seems to have a tendency to involve the region just in front of the oval window where it may fix the stapedial footplate and produce conduction deafness.

Hearing tests show evidence of obstruction to sound transmission in the middle ear without or with varying degrees of nerve deafness. The degree of acoustic nerve dysfunction is dependent on the duration and severity of otosclerosis and any unrelated cochlear or acoustic nerve disease. The degree of deafness is measured with the actual voice, tuning fork tests and the pure tone electric audiometer. All of our patients were checked by the Speech and Hearing Department at the University of Virginia.

The patient generally has a quiet, low-pitched voice characteristic of conduction deafness, and generally can hear better in noisy surroundings because the noise is muffled to the patient and the speaker is inclined to shout. The external canals, drums and middle ears are usually normal to inspection.

In cases of middle ear conduction deafness, the air conduction threshold remains flat and tends to

rise toward the higher frequencies. Bone conduction should remain at near normal levels. In perception or nerve deafness, the air conduction threshold falls at higher frequencies and the bone conduction threshold is markedly subnormal.

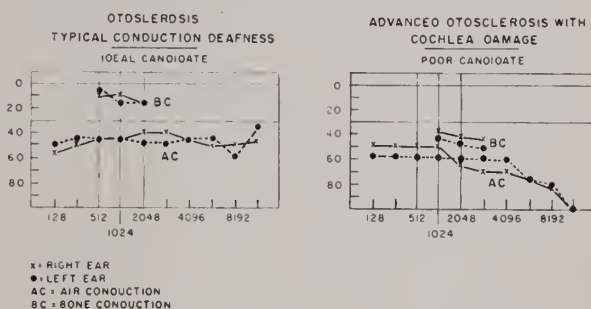


Fig. 1

Our patients were classified as to their suitability for fenestration surgery on the tuning fork and audiometric results. The ideal candidate had an air conduction threshold above 50 decibels and heard the bone conduction tuning forks longer than by air conduction (for 512, 1024 and 2048 frequencies). The fair, but adequate, candidate for surgery had an air conduction threshold above 60 decibels, up to the 4000 frequency, and bone conduction was greater than air conduction for the 512 and 1024 forks and equal to or greater than the 2048 cycle.

The poor candidates were those who fell below the above criteria.

The fenestration procedure as done at the University of Virginia is basically that as originally described by Lempert. However, we use general sodium pentothal anesthesia supplemented with procaine locally rather than local anesthesia with heavy premedication employed by Lempert. The incision is within the canal and auricle—the so-called endaural incision which we have modified slightly. A limited mastoidectomy is necessary to obtain exposure of the middle ear from above the tympanic membrane. The skin of the posterior superior aspect of the external canal is carefully preserved and fashioned to form the Lempert flap to cover the fenestra. The incus is removed, the head of the malleus is

*Presented at annual meeting of The Medical Society of Virginia, Richmond, October 16-19, 1955.

amputated, and now we routinely attempt mobilization of the stapes. The fenestra is made with the temporal bone Jordan-Day drill using a one-half m. m. burr. A cupola is fashioned anteriorly and then removed by gentle blows on an angle gouge. The flap is depressed into the margins of the fenestra and the cavity is packed.

During the operative procedure we routinely palpate the stapes with an instrument to check for fixation and thus confirmation of the pre-operative diagnosis. Many times we were dismayed to find a movable stapes. At first we interpreted this finding to indicate a faulty diagnosis and most likely a poor prognosis with regards to hearing gain; it soon became evident that these patients also obtained a good result and so now we think that in these cases the stapes had been accidentally mobilized during the procedure.

The correct evaluation of results is difficult and does not always comply with audiometric findings of actual decibel gain for the three speech frequencies. We have seen patients who undergo a technically successful fenestration have a fixed stapes which confirms the pre-operative diagnosis and get the expected decibel gain, yet fail to reach their level of conversational hearing and thus are clinical failures. We hope for the decibel gain to bring the operated ear above the level of conversational threshold which is considered to be approximately 35 decibels loss at 500-2000 frequencies. Generally at this level the patient should be able to hear normal conversation and then can discard any hearing aid.

100 CONSECUTIVE FENESTRATIONS

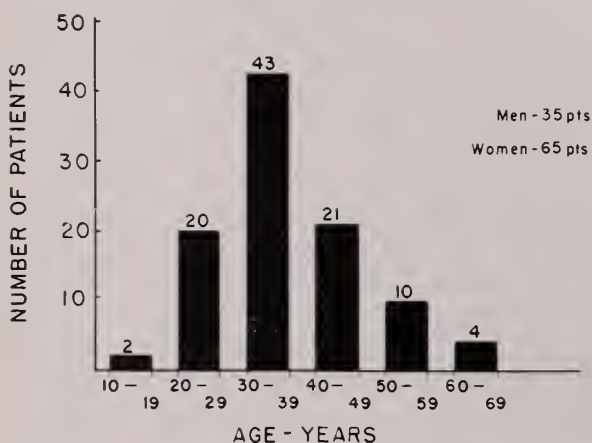


Fig. 2

In these 100 cases, there were 35 men and 65 women. The age distribution showed 84 patients to be from 20 to 49 years of age. Where possible, the fenestration was done on the ear with the poorer

air conduction, which fortunately is usually the ear with the better bone conduction.

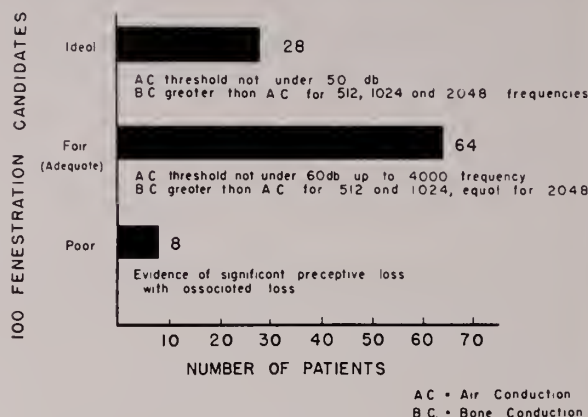


Fig. 3

Using the previously described criteria for establishing the type of candidate for surgery in 100 consecutive cases, we found:

- 28 ideal candidates
- 64 fair, but adequate, candidates
- 8 poor candidates

Two of the 64 fair candidates had to be discarded from this series. The indications were that these two were clinically successful but the followup studies were not adequate for detailed evaluation.

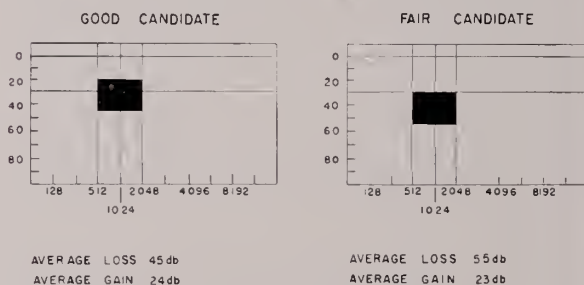


Fig. 4

The following decibel gain statistics are based on maximum decibel gain as determined by the pure tone audiometer on the post-operative patients. All audiograms were done by experienced office nurses at varying intervals following surgery, but generally within the first two months when the hearing is considered stabilized and the post-operative cavity is clean and well healed.

For the ideal candidates (28), there were no initial failures and the average decibel gain was 24 decibels for the three speech frequencies:

- 25 decibels for 512 d.v.
- 25 decibels for 1024 d.v.
- 22 decibels for 2048 d.v.

For the fair candidates (64-2), there were 10 initial failures—candidates who failed to show any gain as determined by the audiometer. Considering

all 62 fair candidates, the decibel gain was 20 decibels for the three speech frequencies:

20 decibels for 512 d.v.

20 decibels for 1024 d.v.

19 decibels for 2048 d.v.

If we eliminate the ten absolute failures, the average decibel gain for the 62 fair candidates was 23 decibels for the three speech frequencies:

24 decibels for 512 d.v.

24 decibels for 1024 d.v.

22 decibels for 2048 d.v.

These results are comparable to the results on the ideal candidates.

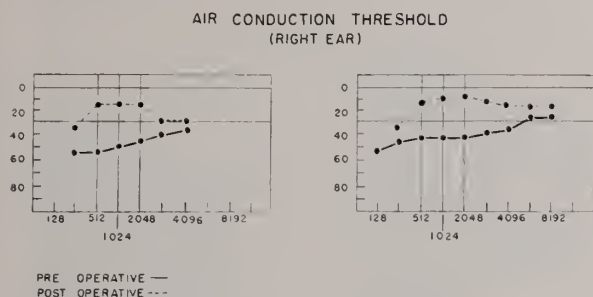


Fig. 5

Figure 5 shows two actual cases showing pre- and post-operative hearing thresholds.

COMPLICATIONS

The complication most disturbing to the patient and the fenestrating otologist was failure to gain usable hearing. This occurred in 18 operations—5 of the 8 poor candidates are included in this number. In only 3 patients was the post-operatively hearing in the operated ear below pre-operative levels.

There was subsequent closure of the fenestra with resultant loss of hearing to pre-operative levels in 6 patients. Three of these 6 patients had revisions of the operated ear and regained usable hearing. In 2 of these closures, a successful fenestration was done on the opposite ear. The fenestra closure generally occurred within six months of the operation date. If the fenestra remained open for twelve months, we felt secure that it would be a permanent opening.

Superficial infection of the mastoid cavity occurred in 17 patients. This was evident by troublesome intermittent drainage and usually muffling of the hearing. Most of the infections were bacterial but several were mycotic. In general, these infections responded to various local medications and office treatments.

Facial paralysis on the operated side occurred in 3 patients. In one, the 7th nerve was inadvertently damaged while making the fenestra; however, the patient recovered in six months. In the other two,

the paralysis developed several days after the procedure, rapidly progressing to total loss of function. Fortunately, there was complete return to normal function in several weeks. Needless to say, this complication is extremely disturbing to all concerned. One of these patients also developed jaundice, thought to be secondary to Chlorpromazine.

Active vertigo is expected immediately post-operatively but seldom was it disabling beyond 10 to 14 days. There were two patients in this series who complained of occasional vertigo for several months.

The hospital stay seldom exceeded eight days. We have found it best to limit post-operative care to cleansing of the auricle and use of a sterile cotton external canal plug after removing the packing on the fifth post-operative day. Instrumentation and cleansing of the operative cavity is generally contraindicated. It not only causes the patient great discomfort from stimulation of the labyrinthine fistula but greatly increases the likelihood of infection. In most cases the mastoid cavity is well covered with healthy epithelium and the drum has regained its normal appearance in one month.

All post-fenestration patients find it necessary to have occasional removal of exfoliated skin and cerumen. A tiny particle of wax or debris over the fenestra generally causes discomfort as well as deafness.

In summarizing the results with regard to actual decibel gain to usable hearing, we find that 82% gained an initial successful result. Six (7%) of these were to suffer closure of the fenestra. Seventy-five patients out of the original 100 patients gained a permanently open functioning fenestra with conversational hearing. Whereas the complications were significant to the individuals at the time, in general they were of no permanent consequence.

Many reports are appearing on the technique and results of the stapes mobilization procedure of Rosen. Briefly, it seems to have the following advantages:

(1) A relatively minor, although technically tedious, procedure done under local anesthesia with, at most, only several days in the hospital;

(2) A method of restoration of hearing without interruption of the ossicular chain;

(3) Few complications other than the operator's inability to shake loose the frozen stapes;

(4) Does not prevent a future fenestration; and

(5) The results published to date have shown success in 1 out of 3 operations as against success in 3 out of 4 fenestration operations.

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The Degenerative Disc Syndrome of the Low Back

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THE degenerative disc syndrome of the low back is an important subject about which much has been written. The main purpose of this presentation is to emphasize the place of the general practitioner and obstetrician in its management. It is my feeling that the problem is best treated by prevention, and in this approach the problem lies largely in the hands of family doctors and obstetricians.

This syndrome, in the past, has been termed lumbago, sciatica, sacro-iliac strain, lumbosacral strain. Twenty-one years ago, in 1934, Dr. Mixter, a neurosurgeon, and Dr. Barr, an orthopedic surgeon, both of Boston, described the first operation for the removal of a ruptured intervertebral disc. Since that time, the role of the disc in low back pain has assumed increasing importance. Disc surgery has been extensive and many studies have been carried out in an endeavor to determine more accurately the anatomy, the physiology and the pathology of this structure. It has been pretty well established that the disc has a sensory nerve supply (Wiberg-Sweden-Acta Scand. 1949) and is therefore capable of producing pain when subjected to excessive pressure or other injury. There is also reason to believe that the disc readily absorbs fluid (Charnley-Lancet, 1952) suggesting that it may readily swell to produce pain in itself, pressure on the adjacent structures, and possibly even rupture from within due to swelling. As a result of such observations, as well as from clinical observations, it is now believed by most orthopedic surgeons, neurosurgeons, and others interested in the problem, that the disc itself plays the most important part in the common problem of low back pain with or without sciatica. It is quite probable that the ligaments of the spine may also play a definite role in back pain in a way similar to that of the ligaments of the ankle in an ankle sprain. Also, it is conceivable that swelling of these structures, in areas where they are in contact with the spinal nerve roots as the roots pass out of the spinal canal, might cause pressure on the nerves to produce sciatica. It is quite certain that protective spasm of the low back muscles is an important factor

in the pain of the disc syndrome. The clinical picture makes this quite definite, but in most cases we feel that the muscle factor is secondary to the disc and ligament pain.

A careful history on almost all low-back-pain-sciatica patients will bring out a story of low back pain in the past, though the patient may consider it negligible. It is my firm belief that these previous minor episodes are nearly all part of the degenerative disc syndrome. It is possible that such minor and transient attacks may be entirely the result of ligament and muscle strain, but it is my feeling that degeneration of the lower lumbar discs begins as soon as we mature. The speed with which the degenerative process proceeds depends on wear-and-tear factors. We see the condition in its acute phase frequently in association with injury, physical strain, and sometimes secondary to the increased strain on the back caused by pregnancy. But many cases occur without any seemingly significant predisposing cause. It is my belief that posture is the significant factor in such cases.

Much has been said and written of posture, but most of the emphasis has been placed on the cosmetic aspects. Extreme sway-back has been considered deserving of comment and attempted correction, but more on the basis of its ugly appearance than on potential cause of backache and sciatica. According to my observations and studies on the problem, I feel that the minor degree of sway-back is probably just as significant and probably a more common cause of the disc degeneration syndrome than the extreme cases which more frequently come to our attention. Let us briefly consider the anatomical, physiological, and morbid anatomical aspects of the low back. The important anatomical structures in this problem and their relationship to each other are illustrated diagrammatically in Figure 1.

The lumbar vertebrae are shown in relationship to each other and to the sacrum, so as to form the neural canals through which pass the lumbar nerve roots; the walls of these canals are composed partly of bony structure, partly of ligaments, and the forward wall is bounded by the ligaments overlying the posterior aspect of the intervertebral disc. The ar-

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ticular facets bound the canals above and below. Articulation of the facets with the adjacent vertebrae is of a sliding type allowing flexion and extension of the spine, as well as rotation. An important feature of the facet arrangement is the fact that the articulation is right in the neural canal and various motions of the spine decrease or increase the size of the channel through which the nerve roots have to pass. So, with extension of the spine the neural canals are reduced to a minimum size and with flexion of the spine they are increased to a maximum size. Ordinarily, the canal size is sufficient to accommodate the nerve roots in any position we normally place

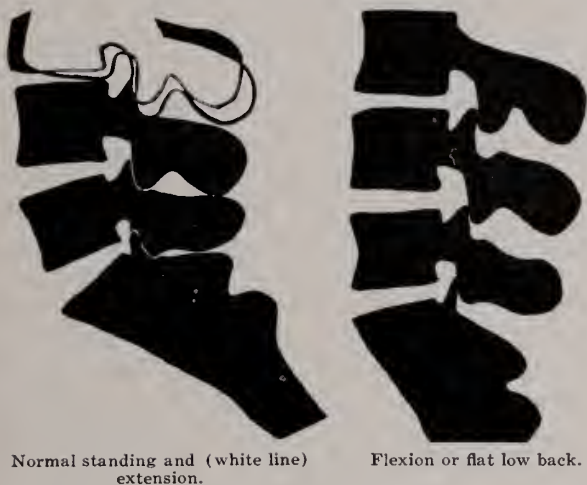


Fig. 1

our backs. However, even in a position of moderate extension, a swelling of the ligaments such as produced by a sprain or a disc injury causing swelling of the disc, or a narrowing of the intervertebral space from long-standing disc degeneration process will narrow the neural canals and increase the chance of pressure on the nerve roots therein. On the other hand, the narrowing of an intervertebral space does not always mean that there will be nerve root pressure. Over a period of time, the nerve roots seem to adjust to the narrowing of the canal and function fairly normally in a more confined space, but with a lesser margin of safety. Anatomico-physiological studies and a very fine movie done by the Navy illustrate that the intervertebral disc bulges backward into the neural canal when the back is extended. Extension of the back causes narrowing of the posterior portion of the intervertebral space, producing undue pressure on the posterior portion of the disc. This is the portion of the disc where ruptures always occur. They usually occur on one side or the other and not in the mid-line because of the heavy posterior longitudinal ligament which gives added support in

the mid-line and causes the rupture to follow the path of least resistance, which is to either side.

An important anatomico-physiological consideration is the lumbosacral angle. It will be seen that with the low back in the extended position the lumbosacral and L4-5 joints have their planes of articulation tilted forward instead of being horizontal. The body weight directed downward, with this angle of the joints, produces a forward thrust of the 5th on the sacrum and of the 4th on the 5th vertebra, causing excess strain on the muscles and ligaments and excessive pressure on the articulations of the facets. The former may be a source of fatigue and aching in the ligaments and muscles and the latter a source of pressure sclerosis and degenerative arthritis on the facets, both of which are seen on x-ray.

We should refresh ourselves on the anatomy of the disc itself. Briefly, it consists of a tough fibrous ring which comprises its outer margin, and is called the annulus. Inside this ring is the nucleus pulposus which is of softer stuff, about the consistency of crab meat. A ruptured or protruded disc occurs when the annulus is so worn or injured that it gives way to the pressure of the nucleus within, so that the nucleus material is allowed to bulge out beneath the ligaments, or actually escape through the ruptured ligaments to lie free in the spinal canal. In any of these stages of bulging or rupture, pressure may be exerted on the adjacent nerve roots. However, clinical observation, namely, of the many cases seen with definite disc symptoms who recover spontaneously or with merely rest, is pretty positive proof that nerve root pressure can occur without complete rupture of the annulus.

One other point in the morbid anatomy of the low back seems to me to be definitely significant. Studies of the skeletons of pre-historic man, American Indians, and Eskimos have revealed that degenerative arthritic changes occurred more predominantly in the mid-lumbar area, whereas today they are more apt to be found in the lower lumbar area. This indicates the transfer of maximum wear and tear from the former to the latter area. This fits the picture of a changing low back function. Our predecessors, more or less constantly pursuing or stalking something or being pursued, spent most of their standing lives in a crouched and active position. They rested in a squatting or curled-up position. Today we spend much more of our time with the low back in the extended or sway-back position whether it be standing, sitting, or lying. A tendency to loss of tone in the abdominal muscles increases the tendency

to sway-back. Whereas man's physical activity used to be more or less constant and regular during waking hours, now it is more likely to be from one extreme of a sedentary occupation to the other of violent week-end activity. This means that we are frequently engaging in physical activities for which we are not in training, and are, therefore, much more subject to injury.

There is another pathological entity of which little has been written. This is the presence of swelling and adhesions involving the nerve roots and adjacent structures in the low back. I think most of us who have explored many low back sciatica cases have found this condition to be present instead of the expected presence of a protruded intervertebral disc. The condition quite naturally increases the reaction to the straight-leg-raising test by putting tension on the sciatic nerve and secondarily on its roots. The cause of this inflammation and swelling is possibly infectious but more likely chronic traumatic factors. I have not observed that these patients benefit by laminectomy. I have done extensive decompression operations on them and lyses of adhesions with unsatisfactory results. Such patients, I am sure, would do better with prolonged periods of conservative treatment and, if this failed, spinal fusion without laminectomy would be a much more helpful procedure than going into the canal and causing further irritation and subsequent adhesions of the nerve roots. Even with the help of the myelogram it is frequently difficult to distinguish this case from the ruptured disc case, but the possibility of this condition being present is an argument for extensive conservative treatment before operation is undertaken.

In the diagnosis of this condition, the history is the most important feature next to the localization of the pain, which may be in the L4-5 area, lumbo-sacral area, sacro-iliac joint region, or posterior hip region. It may extend to various parts of the sciatic nerve distribution in the thigh, leg and foot. Sometimes, pain is radiated in a bizarre fashion to the groins, medial or anterior surfaces of the thighs which makes one wonder if one is dealing with a low back syndrome or if the patient is neurotic. However, most of these cases with bizarre radiation of pain respond to a conservative low back routine of treatment. The Lasague or straight-leg-raising test may or may not be positive, and the patient may or may not have more or less restriction in motions of the spine, muscle spasm, involuntary trunk deviation (or sciatic scoliosis). Changes in lower extremity reflexes, and sensory disturbances may or may not be present. Motor weakness in the lower ex-

tremities is sometimes present, but rather unusual, and when it is present, I feel that there is a definite indication for myelogram to rule out the presence of spinal cord or cauda equina tumor or other tumor involving the nerve elements. A thorough examination of the patient is always advisable and commendable, but in ninety-nine per cent of the cases the history and localization of pain will make the diagnosis sufficiently positive to warrant starting a regime of conservative treatment. In a large percentage of these cases, x-ray findings, as done routinely, are non-contributory. Aside from congenital anomalies, which are relatively uncommon and minimal osteo arthritic changes, routine films are usually returned as negative. However, there are certain x-ray methods which can be used to produce valuable information, both for the doctor and his use in instructing the patient in the care of his back.

Nearly all x-ray laboratories, on receipt of a request for x-ray of the low back or lumbo-sacral area, will comply with multiple views of this area taken with the patient lying down. It has seemed important to me to visualize the back in a functional position where strain is more likely to occur in everyday life, namely, in the standing position. For the past six years or so we have been taking our low back films, using the conventional positions, but also with the patient standing. An anterior-posterior view in this position demonstrates spinal deviation and pelvic tilt. We also use three other standing views, one with the patient standing in his normal position, one with his back flexed, and one with it extended. I have recently studied two hundred of these sets of films. I have compared particularly the neutral or normal standing position of the patient to the extended or backward-bending position by marking cut with wax pencil the outlines of the sacrum and vertebrae and then superimposing the films. I have discovered that eighty-four per cent of this group of persons stand normally with either or both the lumbo-sacral and the L4-5 joints completely extended. In an additional twelve per cent these joints are almost completely extended. In forty-six per cent complete extension occurred at both L-S and L4-5; in thirty per cent at L4-5 alone; and in eight per cent at L-S alone. I am strongly impressed with the significance of these findings. Even though a back may clinically not appear to be extended, or in a position of sway-back, the x-rays frequently show a position of complete extension or almost complete extension when the patient is standing in what he considers to be his normal standing position. I believe this to be a very important

factor in the prevalence of the degenerative disc syndrome. (Figure 1)

As previously observed and emphasized by Williams, the articular facets encroach on the neural canals when the back is extended. This is readily observed in the series of films which I studied. In the flexion position, unless the back is very tight, the posterior portions of the disc spaces and the neural canals open up nicely.

The high percentage of persons with hyper-extended low backs in the normal standing position offers a logical explanation for the prevalence of low back pain and sciatica. It means that most of us habitually carry ourselves in a position where there is pressure on the discs, narrowing of the neural canals, and a minimum safety factor against excessive strain or pressure on the disc which might cause acute rupture. It explains the fact that most disc degeneration cases have a long history of low back pain with increased frequency of attacks, more severe attacks, and development of sciatica after low back pain has been present for some time. It is also logical and proven by experience that correction of this tendency to a hyper-extensive position can permanently relieve a lot of patients of most of their difficulties and probably prevent further degeneration to the point of actual rupture of the disc.

Such observations have long since caused most orthopedic surgeons to abandon the position of rest flat in bed in treatment of severe attacks in favor of a position of flexion with the knees and the head of the bed elevated. This places the low back in a flexed position, removing pressure from the posterior portions of the discs and opening up the neural canals to remove pressure from the nerve roots. Instead of Buck's traction applied to both legs, most of us favor the use of pelvic traction. Of how much value traction is I am not sure, but most patients seem to do better with it, and at least it furnishes a good excuse to keep them on absolute bed rest in the hospital. I am convinced that the rest in flexion is the most important factor in curing any attack. I have seen many cases that clinically had all the signs of ruptured disc, get well by this simple means, though it may take two to three weeks, or even longer, to accomplish this.

When acute symptoms have subsided, the patient is gradually remobilized beginning with flexion stretching of the low back with the knees and hips bent and by moderate abdominal exercises accomplished by raising the head and shoulders when the patient is in a recumbent position with the knees flexed on pillows. These exercises are begun while

the patient is still on complete bed rest and continued thereafter. When the patient can get along without the traction and has little pain despite moving around in bed, he is allowed to gradually resume standing and then walking, feeling his way along, with increasing activity little by little each day. He is taught to roll his pelvis, depressing the buttocks forward and downward and the abdomen upward and backward, thereby keeping the low back flat. He is instructed to test the flatness of his low back by standing up against the wall and eliminating all space in the lumbar area. He must be taught to maintain this position not only in standing but also in sitting and lying down. He is taught that at all times he must keep his buttocks tucked under and his low back flat in order to increase the margin of safety to his discs and nerve roots which may prevent acute or chronic pressure, producing further damage to these structures.

In a large portion of cases, treatment on an ambulatory basis can be carried out without the necessity of putting the patient on bed rest. Heat and massage, exercises and postural work as previously outlined, are the methods used for this program.

In our practice, we issue a little booklet to the patient which has instructions for the care of low back well illustrated. Figure 2 in this article is taken from that booklet. It is called "Care of the Back" and is compiled by William K. Ishmael and Howard B. Shorbe, two orthopedic surgeons of the McBride Clinic in Oklahoma City, Oklahoma. It is put out by J. B. Lippincott Company. It is a useful and relatively inexpensive means of giving the patient something which he can refer to to sharpen himself up on the instructions his doctor gives him.

Manipulative treatments are used in these acute attacks by some and the results are frequently very dramatic, the mechanism of relief apparently being through stretching of the tight muscles. This method is not without risk of further damaging an already damaged disc and possibly even causing rupture of a damaged disc. Furthermore, it produces only temporary relief and does not get at the basic fault which produces the syndrome in the first place. If not followed through by proper postural instruction, it may only give the patient a false sense of security.

In 1951, seventeen years after he had participated in the first disc removal, Dr. Joseph Barr gives us the following results of his disc removal and disc-fusion surgery: for disc excision only, total freedom from back pain, twenty-two per cent, satisfactory back, sixty-four per cent; for disc removal and fusion

	Symptom Free	Satisfactory Back
Disk Excision	22%	64%
Disk Fusion	58%	80%

Fig. 3

combined, total freedom from back pain, fifty-eight per cent, satisfactory back eighty per cent. Other surgeons, before and since, have claimed much better results than this, but from my own observations of



Fig. 2

my cases and the cases of others that I have seen following surgery, and a confidence in the authenticity of Dr. Barr's statistics, I believe that these reports are a bit over-enthusiastic, or that the follow-up period has been insufficient.

If we cannot promise a better gamble on operative treatment of the condition than these statistics show, I feel that we should be mighty slow in recommending operation and do everything we can along a conservative line to avoid it. The operation, in itself, is not without risk and the possibility of leaving adhesions of the nerve roots within the canal following exploration should deter us from surgery except as a last resort. If it seems that surgery cannot be avoided, the patient's after-care of his back must be strongly emphasized to prevent further trouble at the same disc level or possibility at other disc levels. Even if fusion is done along with disc re-

moval, increased strain is thrown on the joints above and below the fused joints so that the patient is apt to have difficulty in the other joints unless he takes proper care of the back following operation.

The point I wish to emphasize most strongly is that the conservative program of treatment can be carried out under the direction of any general practitioner or obstetrician or general surgeon who will take the trouble to acquaint himself with the simple facts of the problem and who will take the time to explain the situation to the patient and instruct him

as to how he can handle it. It is not enough to relieve the patient of any one attack. Time and rest alone will do this. Strapping, injections of novocain, pain medications, etc., will help the patient bear the pain until time produces relief. However, he will probably go on with further attacks, further degenerative changes and ultimately, disc rupture, unless he is properly schooled as to the importance of taking care of his back in the future.

If the general practitioner, obstetrician or general surgeon does not wish to spend the time necessary to educate the patient, then it is only proper that he should turn the case over to someone who will.

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Adrenal Gland Pathology

Diagnosis and Treatment

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IN RECENT years great strides in the knowledge of adrenal physiology and diagnostic studies have been accompanied by increasing surgical intervention in adrenal gland pathology.

In general, the major indications for adrenal surgery are: (1) Hyperfunction of the adrenal cortex or medulla, (2) Tumors of the adrenals, indifferently, cortical or medullary, hormonal or nonhormonal, and (3) normal adrenals that are to be removed because of their effect upon other diseased conditions.

HYPERFUNCTION OF THE ADRENAL CORTX

Hyperfunction of the adrenal cortex is responsible for two main clinical entities, namely: 1. The adrenogenital syndrome, and, 2. Cushing's disease. The former is most frequently found in female children with bilateral hyperplasia of the adrenal cortex producing an excess amount of androgenic steroids as determined by estimation of urinary 17-Ketosteroids. In these cases the chief signs are those of adult masculinization, a false precocious male puberty. Accelerated growth, early pubic and axillary hair and hypertrophy of the clitoris are usually noted. Frequently abdominal exploration with gonadal biopsy is necessary in order to accurately determine the sex of the child. Diagnosis of this entity depends on physical findings, and elevated urinary 17-Ketosteroids. Presacral oxygen insufflation may be of considerable aid in differentiating bilateral hyperplasia from androgenic cortical tumor. The administration of Cortisone, 50 to 100 mg. daily, to these patients should result in a lowering of the 17 Ketosteroids in the urine to relatively normal levels for age, and is a further diagnostic aid, in as much as with tumor cases there is no reduction in the steroid assay in the urine.

Hormonal treatment with Cortisone seems to be superior to surgical therapy in these cases at present. The smallest possible dose should be used to avoid untoward side effects.

Cushing's syndrome is most frequently seen in adult females, though it may occur in children. It

is characterized by muscular weakness, variable hypertension, osteoporosis, hirsutism, glycosuria, amenorrhea in the female and impotence in the male. It is most frequently caused by bilateral adrenal hypertrophy, though sometimes associated with normal sized adrenals and tumors. An excess production of corticosteroids is seen as shown by an increase in urinary corticoids. The urinary 17-ketosteroids may be normal or decreased.

Diagnosis of Cushing's disease depends on the typical physical findings of "moon-face", trunk obesity with thin extremities, abdominal stria, and the aforementioned characteristics, plus an elevation of the urinary 17-Hydroxycorticoids. Pre-sacral oxygen insufflation has been very beneficial in differentiating adrenal hypertrophy from tumor.

Treatment of Cushing's disease due to adrenal cortical hypertrophy should consist of surgical removal of about 90-100 per cent of the adrenal tissue. This may be accomplished at one sitting, utilizing the modified Young operation for bilateral adrenal exposure. We have preferred to remove about 90 per cent of one adrenal at one operation and to perform a complete adrenalectomy on the contralateral side in about ten to fourteen days later. No hormonal supportive measures are needed at the first operation. However, at the time of the second operation, or if bilateral simultaneous exposure is performed, definite pre- and post-operative hormonal therapy is indicated. In general, this consists of 200 mg. of Cortisone given intramuscularly for two days pre-operatively and for several days thereafter, the length and time depending on the clinical condition and electrolyte and carbohydrate state. The dose is then gradually tapered down. A maintenance dose of 12.5 to 50 mg. may be needed to maintain these patients. DCA is given on the day of operation and the first post-operative day, and is continued thereafter only, if needed, as judged by the serum sodium. Radiation of the pituitary has been used rather widely in treatment of this condition with variable results.

TUMORS OF THE ADRENAL CORTX

Tumors of the adrenal cortex are nonhormonal

Presented at annual meeting of The Medical Society of Virginia, October 16-19, 1955.

or hormonal in character, with the latter group being androgenic, estrogenic, corticoid or mixed in type.

Nonhormonal tumors are relatively infrequent and rarely cause symptoms until they have reached considerable size, the usual symptoms being those of flank mass or pain. The diagnosis is usually made by pyelography which reveals displacement of the kidney downward. Pre-sacral oxygen insufflation is frequently of considerable aid in demonstrating the mass, and occasionally translumbar aortography is of value in differentiating the mass from large upper pole renal cysts or tumors.

These tumors are radio-resistant and are best treated by surgical excision. We have found the dorsolumbar flap incision to be very satisfactory in handling large adrenal or upper pole renal masses, though many urologists prefer the thoraco-abdominal or transverse abdominal transperitoneal approach for these cases. No specific pre- or post-operative preparation is needed when dealing with these tumors.

Androgenic tumors of the adrenal cortex occur most commonly in young female children. The changes which occur are similar to those associated with bilateral adrenal hypertrophy. As a rule, the child is normal at first, followed by a change toward adult masculinity. An increase in urinary 17-ketosteroids is always present in these cases. It has been shown that the administration of Cortisone to a patient with an androgenic tumor will produce no change in the 17-ketosteroid determination, while such therapy will reduce the 17-ketosteroids in the urine significantly when administered to the patient with bilateral adrenal hypertrophy.

Localization of the tumor is usually facilitated by pre-sacral oxygen insufflation combined with intravenous urography.

Surgical excision of these tumors usually produces a cure with complete reversal of symptoms. No specific hormonal therapy is needed, and they tolerate trauma and stress well. The tumors may be removed through a dorsolumbar flap, thoracoabdominal or transverse abdominal transperitoneal approach.

Corticoid tumors produce a similar picture to that seen in the adrenocorticoid syndrome caused by bilateral adrenal hypertrophy. They are most frequently seen in adult females. The 17-ketosteroids may be normal or depressed. The urinary corticoids are usually elevated. As a rule the differential diagnosis between tumor and bilateral hypertrophy can be made by means of presacral oxygen insufflation, though, occasionally, because of anatomic conditions a definite pre-operative differentiation cannot be

made. In those cases bilateral simultaneous adrenal exposure is indicated.

When tumor is present the opposite adrenal is almost invariably atrophic and ACTH must be given post-operatively to stimulate its function. These patients in general are guarded risks and careful substitution therapy as previously outlined is needed before, during, and after surgery. In the immediate post-operative period infusions of whole blood and nor-epinephrine should be employed if the blood pressure falls. Serum sodium and potassium levels should be carefully followed and these electrolytes replaced as needed.

The dorsolumbar flap incision is very satisfactory for exposure of a localized tumor. However, if accurate localization is impossible or possibility of bilateral hypertrophy exists, we prefer the modified Young's approach for bilateral simultaneous adrenal exposure.

Estrogenic tumors are quite rare, having been most often seen in adult males. They are characterized by increase in female characteristics with decrease in size of genitalia, impotence and loss of libido, increase in size of breasts and nipple, and loss of body hair.

The diagnosis is usually made on the basis of physical changes and findings of large amounts of excess estrogens in the urine. Localization of the tumor may frequently be accomplished with oxygen insufflation X-rays.

These tumors are usually carcinomatous and treatment consists of complete surgical removal, utilizing any of the previously mentioned approaches. No specific hormonal management is needed.

Mixed tumors of the adrenal cortex are usually carcinomatous and are most frequently seen in females. It has been estimated that they constitute about 25 per cent of the adrenal cortical tumors in children. These patients generally present the typical appearance of Cushing's syndrome together with masculinizing virilism. The urinary 17-ketosteroids and corticoids are elevated.

Diagnosis depends on physical changes, urinary hormonal studies and localization of tumor by means of intravenous pyelography combined with pre-sacral oxygen insufflation.

Treatment consists of early operative removal together with careful hormonal management as with those patients with corticoid adrenal tumors.

Recurrence of symptoms is fairly frequent because of metastasis to the lungs and/or liver. The administration of Cortisone to these patients has proved to be of no value.

Tumors of the adrenal medulla may be classified as hormonal or nonhormonal. The former arise from the pheochromocytoma cells, while the latter have their origin in the ganglia cells of the medulla.

Nonhormonal tumors consist of the sympathicoblastomas and neurocytomas.

Sympathicoblastomas most commonly are seen in infants and children, and may occur in either adrenal or any other sympathetic ganglia. They are very malignant and metastasize readily to the skull, thorax and liver.

The diagnosis is most frequently made, as with Wilms' tumors, by discovery of an abdominal or flank mass. As a rule they are without symptoms unless advanced metastasis has occurred. Intravenous pyelograms will usually reveal a mass above one kidney with downward displacement of the latter.

Treatment consists of early operative removal of the tumor with avoidance of excessive trauma. Either the transperitoneal, transthoracic or the dorsolumbar flap approach is satisfactory, and every effort should be made to ligate all vessels to and from the tumor prior to handling. Post-operative irradiation is probably of some value, particularly if obvious tumor extension or metastasis are present.

The neurocytomas are usually seen in adults and as a rule are accidentally discovered as a flank or abdominal mass. They are generally benign or of very low malignancy, and complete surgical removal should produce a cure. Excretory or retrograde pyelograms, oxygen insufflation X-rays and lumbar aortograms are helpful in differentiating these tumors from those of renal origin. Treatment consists of surgical excision, utilizing any one of the conventional approaches.

In recent years considerable attention has been focused on the diagnosis and treatment of pheochromocytomas. These tumors are most commonly found in the adrenal medulla, though they also occur in the retroperitoneal ganglia. About 90% of these tumors are benign. They have been shown to produce epinephrine and nor-epinephrine in varying amounts, and it is felt that the symptoms produced are the result of an excess of varying amounts of these two substances.

About one-third of the cases of proven tumors exhibit paroxysmal episodes of hypertension, while persistent hypertension with or without paroxysmal crisis is more frequently the presenting symptom. Other findings include hypermetabolism, glycosuria and elevated blood sugar, headache, rapid pulse, weakness, and marked sweating.

The diagnosis of pheochromocytoma depends on the above findings, pharmacological tests and radiography.

The most widely used pharmacological studies are the histamine, benzodioxane and regitine tests. The former, when injected intravenously in a patient with a tumor, will produce a marked rise in blood pressure associated with symptoms of precordial and abdominal pain, headache, nausea and sweating. The duration of the crisis is usually short, with the blood pressure returning to near its former level. This test is generally quite reliable, though negative results in proven tumor cases have been reported.

Benzodioxane and regitine, when administered intravenously in the presence of sustained hypertension, or during a paroxysmal attack, will produce a significant fall in blood pressure in those patients with pheochromocytoma.

Accurate localization of the tumor pre-operatively is frequently possible with pre-sacral oxygen insufflation combined with intravenous pyelography. This is particularly true of those tumors located in the adrenal gland. When the tumor is situated without the adrenal it is frequently difficult to outline it with gas. We have localized six pheochromocytomas in the past two years with retroperitoneal oxygen insufflation, and have had one known failure. This latter was a tumor located in the right adrenal in a seven year old male. Air studies in this child were interpreted as being within normal limits. A chest X-ray should always be made because of the possibility of an intra-thoracic tumor.

Treatment of these tumors consists of surgical removal, and such removal will completely relieve the patient of the signs and symptoms of the suprarenal sympathetic syndrome.

Careful planning of the procedure is quite necessary to insure a successful result. We have preferred nitrous oxide, oxygen and ether for anesthesia. Regitine may be given intravenously pre-operatively in those cases with sustained hypertension, and should be available for immediate use to combat any rise in the blood pressure which may occur during the handling of the tumor. Likewise, non-epinephrine (4 mgs/liter) must be available for immediate use to control the hypotension and circulatory collapse which frequently follows removal of the tumor. It is given intravenously at a rate sufficient to maintain a moderate hypertension, and continued for about 24 hours after operation, or until the pressure stabilizes.

Surgically the tumors may be removed through any of the conventional approaches to the adrenal. We

have employed all of the conventional approaches in dealing with these tumors, and at present feel that the transthoracic or dorsal flap incisions give the best exposure when the tumors can be well localized pre-operatively. For those which cannot be accurately localized, the transperitoneal approach with exposure of both adrenals is preferable.

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Wide Range of Activities

Activities of the nation's county medical societies ranged from cancer and tuberculosis control programs to sponsorship of Little League baseball teams during 1954-55, a recent American Medical Association survey showed.

Nearly 64 per cent of the 1,931 county medical societies in the United States and its territories replied to a questionnaire on their professional, educational, and community programs, circulated by the A.M.A.'s council on medical service.

"There appeared to be a growing awareness by all societies—both large and small—of the need for them to become participants in community activities," a report in the February 18th *Journal of the American Medical Association* said.

Telephone-answering services and emergency call systems, which help patients reach physicians at all times, were maintained by many societies, especially in large cities.

Activities aimed at developing better relations between the medical profession and the public included grievance committees, which serve as "appeal boards" for patients with complaints; medical economic committees, which maintain business services for doctors and the public, and public relations committees, which help to promote better understanding

by the public of the societies' aims and activities.

In order to interpret their activities to the layman, societies maintained speakers' bureaus and sponsored state and county fair exhibits, health fairs, special community health days, radio and television programs, and newspaper health columns.

They attempted to promote better health in their communities by participating in programs to provide medical care for the indigent and by activity in county or city health councils, which are voluntary associations of community agencies interested in various aspects of health.

Disease control programs included cancer, tuberculosis, diabetes, rheumatic fever, and venereal disease. Many societies had committees dealing with special medical problems, such as care of the aged and the chronically ill, rehabilitation, maternal and child care, mental health, public health, and alcoholism.

In addition, they sponsored school health and safety programs, many running poster and essay contests in schools. Societies also participated in such diverse community projects as community chest drives, slum-clearance programs, vocational guidance, better government movements, mosquito control, and Little League baseball programs.

Sheean's Syndrome

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THE purpose of this paper is not to introduce anything new concerning Sheean's syndrome, but rather to bring it to the attention of the practicing physician and raise his index of suspicion so that more cases might be detected. The fact that three such patients have been recently seen in the vicinity of Petersburg will indicate that the frequency of the disease is greater than commonly indicated.

The term Sheean's syndrome is reserved for pituitary necrosis following childbirth. Normally after childbirth there is diminished blood flow to the pituitary gland. Should this be augmented by shock, the pituitary, which is enlarged during pregnancy, is peculiarly susceptible to thrombosis resulting in necrosis.

These patients present a group of symptoms making the diagnosis easy if suspected. The fact that any patient suffers a severe hemorrhage or shock during her postpartum period should immediately alert the attending physician that pituitary necrosis might occur. The amount of necrosis involved would determine how soon symptoms would develop and to what degree.

These patients show slow regrowth of the pubic hair. They fail to menstruate. They are unable to nurse their children and their breasts tend to atrophy. Skin assumes a peculiar waxy yellow color and very frequently they suffer from early loss of teeth. Often weakness and hypertension are the presenting symptoms. These patients do not necessarily lose weight. Should the patient become pregnant again, which has been noted as occurring, they very frequently die at the end of the pregnancy. Should the patient be operated on and the condition not suspected, death frequently occurs on the operating table.

Laboratory findings that are usually present include normochromic anemia, leukopenia with relative lymphocytosis, hypoglycemia, and decreased basal metabolic rate. The serum cholesterol is rarely elevated. Serum protein bound iodine is low, as is the excretion of 17 ketosteroids.

Reported below are three illustrative cases:

(1) A.G. Thirty-two year old, white, female, initially admitted to the Petersburg General Hospital

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Presented at the Fourth District Medical meeting, September 13, 1955.

in 1944 because of ruptured uterus occurring during childbirth. At that time a Cesarean section was performed and a hysterectomy was done and a stillborn fetus was removed. The patient ran a temperature elevation up to 105° for several days. She suffered a vesico-vaginal fistula, which was not repaired until 1951. The patient's health in the interim had been fairly good. No difficulty during the operation in 1951 was anticipated. Vesico-vaginal fistula was repaired. The patient did very well during the operation; however, immediately upon completion of the operation, she went into profound shock and remained there for a week. No explanation for this shock could be ascertained and the patient was treated symptomatically, given adrenal cortex intravenously, ephedrine, fluids, and blood. She slowly came out of shock and appeared to be doing well. At this time the diagnosis of Sheean's syndrome was not suspected. The patient was again seen in the Emergency Room in July, 1952, at which time she was in profound shock, secondary to infection of the left leg. It was at this time that the diagnosis of Sheean's syndrome was suspected.

Since that time the patient has had numerous episodes of infection which were accompanied by profound shock. Physical examination on one of these occasions revealed a pale, white, female, unconscious on stretcher. Temperature 95.6°, pulse 64, respiration 16. Blood pressure 160/90. Slight cyanosis was present. Neck was not stiff. Pupils reacted to light. Heart and lung examinations normal. Abdominal examination negative.

Laboratory data: Blood sugar 24 mgs.%. Spinal fluid was normal. Serum sodium 136 milliequivalents. Serum potassium 4.6 milliequivalents. Urine negative. Absolute eosinophil count 43. NPN 34.

Chest x-ray was normal.

The patient was treated with intravenous glucose and saline. She was given aqueous adrenal extract and showed a very prompt improvement in her condition.

Further diagnostic studies, performed after she recovered from coma, revealed Bio-assay for follicle stimulating hormone was abnormally low. BMR minus 24. Radioactive iodine uptake was 12% in 24 hours. Serum cholesterol 200 mgs.%. The Kep-

ler Water Test was positive. 17 ketosteroids was 1.05 mgs.

The patient was subsequently discharged on cortisone, 12.5 mgs. twice a day, and thyroid, 60 mgs. daily.

She has been treated on five other occasions, each time being in profound shock and coma secondary to cellulitis of the leg. The patient in each instance has responded to therapy similar to that outlined above.

(2) G.W.M. Twenty-nine year old, colored, female, was initially seen at the Petersburg General Hospital in September, 1953, at which time she gave birth to a living female child. At that time she suffered a more than usual amount of hemorrhage during the third stage of labor. The patient, following the birth of this child, complained of headache, generalized weakness, and had suffered weight loss.

The patient was seen and studied extensively elsewhere and no definite diagnosis was made. She was given electro-shock therapy, but continued to do poorly. She was brought to the Emergency Room of the Petersburg General Hospital in October, 1954, in profound shock and coma and the patient appeared to be in extremis. At that time the only history that could be elicited was that the patient had not menstruated after the birth of her last child, her breasts had become small, and she had noted very slow regrowth of pubic hair. Because of the extreme emergency of the situation, no laboratory studies were undertaken.

The patient was immediately started on intravenous hydrocortisone and supportive therapy. She showed a very prompt improvement in her condition.

Subsequent laboratory data revealed fasting blood sugar of 93. NPN 36.5. No eosinophils were seen. Sodium 1.25. Potassium 4.03.

Electrocardiogram was abnormal, revealing low voltage in all leads. Chest x-ray was normal. Skull films were essentially within normal limits.

The patient was discharged from the hospital on small doses of Cortisone by mouth and continued to do well for about eleven months, when she stopped taking the Cortisone and again went into profound shock and coma. Cortisone was given intravenously in the home, along with 50% Dextrose, and the patient immediately aroused from coma and came out of shock a few hours later and has done well since that time.

(3) H.M. Thirty-six year old female was initially seen in June, 1955, with chief complaint of swelling of both lower extremities for a period of

one week. The patient had been seen off and on for sometime with various minor complaints. She had been noted to have a yellow tint to her skin, but had not suffered from any anemia. The family history was non-contributory. The patient had been married once, had two children aged sixteen and fourteen years respectively. The patient had had the usual childhood diseases without complications. There had been no surgery.

Other than the complaint of always being weak and lacking energy, the patient had no complaints except for a drawing of her neck, which had started three years prior to admission.

After the birth of her second child, the delivery occurring at home, the patient had a profuse postpartum hemorrhage. After this the patient's periods became scanty and occurred only every 90 days.

Physical examination revealed a patient who appeared to be her stated age. Skin was yellow and sallow colored. Exophthalmos was present. The mouth was negative except for marked carious teeth. There was no enlargement of the thyroid. Heart and lungs were normal. Examination of the extremities revealed pitting edema of both lower extremities, which disappeared after bed rest. The skin on the legs was extremely dry and the patient's whole sensorium appeared to be clouded. She was lethargic and lazy in appearance. She answered questions very slowly and deliberately.

Laboratory work, including blood sugar, NPN, total protein, prothrombine time, cephalin flocculation, serology, were all negative. Examination of the blood revealed 3.7 red count, white cells 5,300, hemoglobin 10.8 gms., 60% Polys, 38% Lymphocytes, 1% Eosinophils, 1% Basophils. BMR was minus 32. Cholesterol 284.

Electrocardiogram was done, revealing T wave changes compatible with myocardial damage, metabolic change, or coronary artery disease.

X-ray of the spine revealed small arthritic changes and narrowing of the intervertebral joints.

X-ray of the chest revealed minimal infiltration of both upper lobes suggestive of tuberculosis of questionable activity.

Because of the history of scanty menstrual periods, and because of the marked hypothyroidism, Sheehan's syndrome was considered a possibility. Endocrine evaluation revealed low serum sodium and chlorides, 177 and 84 milliequivalents respectively. BMR minus 38. Radio-active iodine uptake 1% in 5 hours. Urinary 17 ketosteroids less than 1 mg. in 24 hours, and low 17 hydroxycorticosteroids. Sella turcica was normal. There was no osteoporosis of

the spine. Electrocardiogram returned to normal on treatment.

The patient was given a four day ACTH test with 20 units of Gel intramuscularly every 12 hours for 8 doses. This produced a very over-active individual, who was euphoric and quite upset. Her 17 hydroxycorticosteroid excretion increased greatly and her 17 ketosteroids secretion only mildly increased. Total eosinophils fell, as was expected.

The patient was put on Cortisone tablets and salt and a four day thyroid stimulating hormone intramuscularly test was done for three doses. The I-1 uptake showed a definite, although moderate, rise after three days of TSH therapy. The patient had a possible active tuberculosis and for this reason she was put on anti-tuberculosis therapy for one year.

At present the patient is on PAS, isoniazide, Cortisone 10 mgs. twice a day, desiccated thyroid 15 mgs. daily, and sodium chloride tablets 1 gm. four times daily.

SUMMARY

Each of the foregoing cases, on reviewing their histories, presented very definite history of hemorrhage, either during or in the immediate postpartum period, and in each case there had never been a

return to normal health and vigor after this had occurred. Each case eventually presented itself in the hospital with some complication indicating the patient's poor ability to respond to stress. In each case a very marked improvement was noted by the use of thyroid, cortisone and, in some instances, testosterone therapy.

The incidence of three such cases, which have been seen in a period of twelve months by the medical department in our area, would seem to indicate that this syndrome is far more widely distributed and far more common than is usually recognized. It is of importance to recognize this syndrome, not only so that the patient may be put on substitution therapy and be returned to a normal metabolic state, but it is also important to recognize the syndrome because these patients tolerate stress very poorly and there have been deaths reported from simple operations which were done on unsuspected victims of Sheehan's syndrome, as well as patients becoming critically ill, going into shock, and coma, from simple infections which they tolerate very poorly.

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Record Keepers Confused

The mass movement to suburbia in recent years has produced a lot of frustrating situations for a lot of people, among them the keepers of birth and death statistics. They no longer are certain just where people live. Because the addresses of suburbanites, living outside the city limits, often carry a city postal zone number and the city name, these persons are mistaken for city residents. This sometimes makes rural and urban death and birth rates inaccurate.

Dr. Halbert L. Dunn, chief of the National Office of Vital Statistics, U.S. Public Health Service, Washington, D.C., said in the November 19 Journal of the American Medical Association, "Everyone

knows that birth rates are higher for rural residents than they are for city people and that death rates are higher for the cities than they are for rural areas." But with the present suburban address situation, the rates for city dwellers appear higher and those for rural residents lower than they really are.

Therefore, the 1956 birth and death certificates are being changed. The certificates will carry the following questions: Is place of birth (death) inside city limits? Is residence inside city limits? Is residence on a farm? From the answers the statisticians should be able to decide whether the family lives in the city, on the farm, or somewhere in between.

Hernia Through the Foramen of Winslow

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SINCE Blandin's original description in 1824, 70 authenticated cases of hernia through the foramen of Winslow have been reported in the English and foreign literature¹⁻¹³. From 1824 to 1924, thirty cases were reported with a mortality of 80%¹¹. Since 1924 forty additional cases have been reported with a mortality of over 60%^{1,12}. Obviously there is room for improvement.

For this reason, all available case reports in the literature and our own case have been reviewed and analyzed. Apparently the *sine qua non* lies in the recognition that a surgical abdomen exists, and, more specifically, that an internal hernia through this foramen is present and that immediate surgery is indicated once this diagnosis has been made.

Rather than discussing all the clinical and laboratory data in the case reports, we have chosen to emphasize three criteria in diagnosis which were present in a majority of the case histories reviewed. This triad, when it exists in its entirety, is pathognomonic of hernia through the foramen of Winslow. It includes: (1) The presence of a tender epigastric mass. (2) Signs and symptoms of intestinal obstruction. (3) On x-ray, the presence of a gas filled mass or bubble in the region of the lesser sac with or without displacement of the stomach. When any two of these factors exist, then one should be highly suspicious of this particular type of hernia.

A history of an epigastric mass which appeared and disappeared was present in a majority of patients. In a number of cases, this mass existed for many years and in our case was known to have been present intermittently for sixteen years. The tumor mass was almost always tender and always in the epigastrium. Signs and symptoms of partial or complete intestinal obstruction were usually present. This included colicky abdominal pain, constipation, obstipation, absence of flatus, progressive abdominal distention, hyperperistalsis, etc. Where an x-ray was taken a gas filled mass was usually present in the region of the lesser sac. As in our case, it wasn't

always recognized and was sometimes mistaken for the stomach bubble. A lateral x-ray of the abdomen may show gastric displacement. If one desires, a swallow of barium may help localize this gas filled bubble and illustrate gastric displacement.

Case Report. A. M., a 52 year old white female was admitted to the Surgical Service of DePaul Hospital on the 25th of February, 1955, complaining of an epigastric tumor intermittently present for sixteen years, epigastric pain relieved by food for one month, and severe colicky abdominal pain for one week associated with nausea, vomiting and constipation. No definite history of hematemesis or melena could be obtained.

Physical examination revealed an obese white female who was confused and appeared chronically and acutely ill. Her blood pressure was 90/70, her respirations were 24, and her temperature and pulse were normal. The positive significant physical findings were limited to the abdomen and rectum. The abdomen was soft with questionable minimal distention. There was some tenderness in the epigastrium and a large 10 cm. in diameter mass was barely palpable. There was no rebound tenderness. A tremendous fecal impaction was present on rectal examination.

Laboratory data showed a normal white count and differential, a normal N. P. N. and a mild anemia. An x-ray of the abdomen on admission was reported as revealing an absence of gas in the area of the cecum. Dilated loops of transverse colon were present. There were irregular areas of gas present just underneath the liver, the significance of which was not clear. An extremely large amount of fecal matter was visible in the rectum (Figs. 1 & 2).

Impressions on admission included early partial intestinal obstruction, pancreatic cyst, carcinoma of the stomach or other abdominal malignancy and fecal impaction.

Hospital Course. The patient's fecal impaction was removed manually. During her first 36 hours in the hospital the patient became confused and then semi-comatose. She developed rather severe abdominal distention on her second hospital day. Her

From the Surgical Service of DePaul Hospital.

Received for publication November 26, 1955.

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blood pressure dropped precipitously. She exhibited for the first time, on her second hospital day, an acute surgical abdomen. Transfusion was started and a Miller Abbott tube was passed. The patient was taken to surgery. An exploratory laparotomy



Fig. 1. Large gas filled bubble with fluid level lying behind the stomach and representing obstructed ascending colon and hepatic flexure.



Fig. 2. Small and large bowel obstruction.

was carried out. The entire cecum, ascending colon, hepatic flexure with the terminal small bowel had herniated through the foramen of Winslow into the lesser sac. With some difficulty this bowel was reduced and examined. The right colon and appendix were gangrenous and necrotic. A resection was carried out with an ileo-transversotomy. The patient's post-operative condition was progressively downhill. She developed generalized edema, oliguria and signs and symptoms of cerebral hypoxia. She expired two days after her surgery.

An autopsy examination was done and the final pathological diagnoses included:

- (1) Gangrene of the right colon and appendix.
- (2) Necrosis of the left lobe of the liver, explained only by pressure of the incarcerated internal hernia on the left hepatic artery.
- (3) The kidneys revealed pathological changes grossly and histologically consistent with lower nephron nephrosis.
- (4) There was almost total atrophy of the thyroid gland.

SUMMARY

The mortality associated with hernia through the foramen of Winslow remains exceedingly high. To decrease this mortality one must recognize the fact that a surgical abdomen exists. Three important points in diagnosis are emphasized, which, when present, are pathognomonic of the disease entity. The literature has been carefully reviewed, is briefly discussed, and a case presented.

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New Muscle Relaxant.

Four preliminary reports on a new muscle relaxant, which in its experimental stage shows promise of bringing comfort, appear in the March 3rd Journal of the American Medical Association.

The compound zoxalolamine (Flexin) has several advantages over older drugs used to relieve persistent muscle spasms, but further study is necessary to determine the extent of its usefulness. The studies showed possible use of the drug for patients suffering spasticity, various rheumatic and arthritic diseases, and diseases of the brain and spinal cord, and for children with cerebral palsy.

Zoxalolamine's principle role seemed to be to aid in nursing care, to increase the comfort of the patient, and to facilitate the work of the physical therapist, according to Dr. William Amols, New York. It has a longer period of action, greater effectiveness when given orally, and causes fewer side effects than older relaxants. He gave the compound, in combination with chlorpromazine (Thorazine), a tranquilizing agent, to 28 patients with a variety of neurological disorders involving the voluntary muscles. The major benefit was relief from the discomfort and inconvenience of the spasms, but many patients said the drug caused weakness in their limbs, which impaired their ability to get around.

The drug was especially effective in relieving stiffness and aching from rheumatic diseases, Drs. Richard T. Smith, Kenneth M. Kron, William P. Peak, and Irvin F. Hermann, Philadelphia, said. Excellent or good results were obtained in 85 of 100 patients in whom stiffness and soreness prevented the necessary program of exercise. Complete relief was obtained in some patients within 30 minutes after swallowing the pill, and partial relief in others within 60 minutes.

Patients with rheumatoid spondylitis, a form of arthritis affecting the vertebrae, received the best over-all relief from muscle spasm, with 15 of 16 patients benefiting.

The most common unfavorable side effects were associated with the gastrointestinal tract and equilibrium. Some patients overcame them and continued taking the drug, but 13 had to discontinue the drug because of the severity of the side effects. Chills and fever, burning and tearing of the eyes, and skin rash also were noted.

The long range effectiveness of the drug in improving muscular function in cerebral palsied children is not yet clear, although its results in 15 of 28 children were encouraging, Drs. Edwin H. Abrahamson and Henry W. Baird III, Philadelphia, said. It produced relaxation in 10 other children, but caused unfavorable side effects in eight of them. Burning taste, loss of appetite, vomiting and too much relaxation were noted in 15 of the 28.

Seventy patients with spasticity and other forms of uncontrolled muscular activity resulting from disease in the spinal cord or brain took the drug under the direction of Drs. Manuel Rodriguez-Gomez, Antonio Valdes-Rodriguez, and Arthur L. Drew, Ann Arbor, Mich.

The relaxing effect was best in patient with lesions in the spinal cord, especially multiple sclerosis. The effect on patients with diseases affecting the brain, especially paralysis agitans (Parkinson's disease) and hemiplegia (paralysis of one side of the body) was less predictable. In some instances the drug made the symptoms worse and in others greatly improved the condition.

Gastric irritation, nausea and vomiting, and drowsiness were produced by high doses of the drug.

Esophageal Obstruction by Aneurysm of Lower Thoracic Aorta

A Case Report

HAROLD GOODMAN, M.D.

FELIX FERARU, M.D.

Richmond, Virginia

COMPLETE obstruction of the esophagus by an aortic aneurysm is extremely rare. Only one similar case described by Buckstein could be found in the English or American literature. There have been reports of displacement of the esophagus anteriorly with narrowing as a result of aneurysm of the thoracic aorta, but no mention was made of obstruction.

Because of the paucity of literature on this condition, we are presenting the following case report:

J. G. (#56-329), a 67 year old white male, was admitted to McGuire Veterans Administration Hospital on February 8, 1954, with the chief complaint of aching in his shoulders, hips, knees, and back. He complained also of urinary frequency with nocturia three to four times. Physical examination revealed a well developed and well nourished male in no acute distress. His blood pressure was 180/80. There was some generalized limitation of joint motion throughout his body. Rectal examination disclosed a firm and nodular prostate that was about three times normal size. X-ray examination showed mottled densities in his pelvic bones consistent with osseous metastases from a carcinoma of the prostate. A palliative transurethral resection was done and the clinical impression of prostatic carcinoma was confirmed histologically. Post-operatively, he was placed on daily doses of stilbestrol by mouth. His recovery was uneventful until the 12th post-operative day at 1:15 P.M. when he suddenly developed profuse sweating, extreme weakness, and an ashen grey pallor. He became nauseated and vomited, but within a few hours recovered completely from this episode.

Within the next few days the patient's appetite decreased and he became weaker. This was thought to be the result of an infected vasectomy wound. This episode subsided in two weeks.

Approximately two months after admission and one month after the first episode of collapse the patient began complaining that swallowed food "stuck in his chest". Barium study of the esophagus

revealed an almost complete block at the level of the 8th dorsal vertebra. At this site the esophagus angulated sharply anteriorly and the lumen tapered into a fine stream (Figures 1 and 2). Only a faint trace of barium entered the stomach. The esophagus above the involved area was not unusually dilated. The finding suggested either an intra-luminal foreign body, such as a bolus of food, or obstruction caused by extrinsic pressure posteriorly.

On further questioning, the patient stated emphatically that the obstruction was sudden in onset and bore no symptomatic relationship to his previous anorexia. Therefore, because of the possibility of obstruction by a foreign body, esophagoscopy was attempted that evening under topical anesthesia. Due to marked spasm of the cricopharyngeus muscle, which could not be overcome by any maneuver, the attempt was abandoned and repeated the following morning under general anesthesia. A 9X53 Jackson esophagoscope was passed with ease. The esophagus was filled with milky barium. Thirty-two centimeters from the upper incisor teeth an obstructing lesion was found. This appeared polypoid, red, friable, and oozed blood when touched. Four centimeters beyond this level a complete obstruction was encountered. Because of the retained food and barium, the exact appearance of the lesion could not be determined. Tissue of the polypoid excrescences was taken for biopsy and the instrument removed.

The patient reacted very slowly from the anesthesia, but his pulse and blood pressure remained stable. However, at 7:30 P.M. he suddenly became pale and sweaty, and his pulse became rapid and feeble. Supportive therapy was given but to no avail. The patient died at 9:20 P.M.

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Received for publication, December 12, 1955.

An autopsy was performed 12 hours after death. The left pleural cavity contained 2700 cc. of partly clotted blood. There was a direct communication between the left pleural cavity and an aneurysmal sac of the thoracic aorta through a rent in the medi-

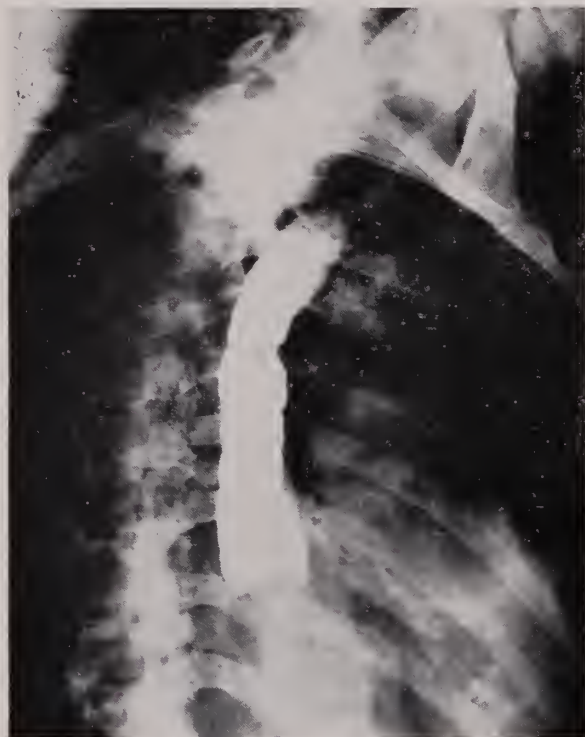


Fig. 1. Almost complete block at level of 8th dorsal vertebra.



Fig. 2. At level of 8th dorsal vertebra, the esophagus angulated sharply anteriorly and the lumen tapered into a fine stream.

astinal pleura, measuring 1.0 cm. in diameter. The aneurysm was located immediately above the diaphragm; it was spherical, measured 4.0 cm. in diameter and extended posteriorly and laterally, elevating the mediastinal pleura, and bulging into the left pleural space. The aneurysmal ostium was 2.5 cm. in diameter and the aneurysmal lumen was partly filled with pinkish-tan, laminated, friable thrombi. The pleural rent was on the summit of the bulge where the wall of the aneurysm was thin, soft and friable. The course of the esophagus was displaced anteriorly and curved over the aneurysmal bulge. The lumen of the esophagus was compressed and there was a shallow defect in the mucosa proximal to the displaced segment and 6.0 cm. above the diaphragm. The esophageal wall around the defect was swollen and boggy. There was no communication between the lumen of the esophagus and the pleural space or the aneurysm. The esophageal wall above the lesion appeared intact and the mucosal lining was thrown in longitudinal folds.

Microscopic examination of the aorta above the aneurysm revealed far advanced atheromatous changes in the intima with thickening, hyalinization, deposition of lipid material and calcium. The media contained many vascularized scars which distorted and interrupted the course of the elastic fibers. There was also slight perivascular infiltration in the media and marked focal infiltration in the adventitia with lymphocytes and plasmacytes. The aneurysmal wall underwent far advanced necrotic changes to the point where all the layers were replaced by homogeneous eosinophilic material focally impregnated with basophilic dust. The surrounding areolar tissue was also partially replaced by strands of fibrinoid acellular material and there was some extravasation of blood, as well as focal lymphocytic infiltration. A section of the esophagus adjacent to the aneurysm was edematous and infiltrated with histiocytes. The cellular infiltration had a more acute character as one proceeded in the direction of the mucosal lesion. The pathologic diagnoses were: Syphilitic aortitis with a ruptured aneurysm, left hemothorax, and acute esophagitis. There was also evidence of generalized arteriosclerosis with fibrosis of the myocardium, senile nephrosclerosis, and post-operative status following prostatic resection.

SUMMARY

A case is presented of a syphilitic aneurysm of the descending thoracic aorta that caused almost complete obstruction of the esophagus and resulted in death from perforation into the left pleural cavity.

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Sore Throat Treatment.

A man with a sore throat today is better off than George Washington was when he had one in 1799. During his fatal illness, which began with a sore throat, in December of that year, Washington was treated with "the best" eighteenth century methods—"bleeding," the application of "blisters" to the neck, gargles, inhalations, cathartics, and immersion of his feet in hot water.

Now treatment for sore throats includes antibiotics and sulfonamides for severe cases and the "time-tried" methods of complete bed rest, adequate amounts of fluids, salicylates for the control of fever, and irrigation of the throat with warm salt water for mild cases.

In Washington's day, the diagnostic method of chest thumping and listening was unknown and no one thought to examine his throat. His illness was diagnosed as "quincy" (an abscess near the tonsils) and later as "cyanche trachealis," an indefinite medical term then in vogue for a severe sore throat that involved the vocal cords. Although the exact diagnosis of his illness is a matter of dispute, it seems likely that a strain of streptococci organisms was responsible, Dr. Noah D. Fabricant, Chicago, said in the February *Today's Health*, published by the American Medical Association.

In past years complications from "strep sore throats" were common, but now antibiotics and sulfonamides are effective weapons against the terror of streptococcus infection, he said. "Strep throats" usually start suddenly, with chills and high fever.

Some patients develop a skin rash, so that sometimes it is difficult to distinguish this disease from scarlet fever.

The "common, garden-variety" sore throat usually results from irritation or infection of the back wall of the throat (pharyngitis) or of the tonsils (tonsillitis). Acute pharyngitis is caused by many different types of microorganisms and viruses. The symptoms include sensations of burning and scratchiness, a constant desire to clear the throat, painful swallowing, fever, headache, loss of appetite, and a dry, harsh cough. In the acute stages, pharyngitis gradually wears itself out, but bed rest, adequate amounts of fluids, and salicylates are helpful. If the fever is or remains high, use of antibiotics and sulfonamides to prevent complications may be necessary.

While gargling is popular, there is considerable doubt as to its value, Dr. Fabricant said. Experiments have shown that fluids fail to reach either the back of the throat or the tonsils, because the gargling causes the back of the tongue to meet the soft palate, closing off the back part of the throat. However, it is possible to irrigate that part of the throat with a syringe. Various studies have shown that ordinary mouth washes "can do no more than wash." They are in contact with the infected area for too short a time to kill the bacteria and viruses.

As in acute pharyngitis, antibiotics and sulfonamides have taken the "sting" out of tonsillitis. Bed rest, fluids, easily swallowed foods, and salicylates also help give relief.

JOSEPH E. BARRETT, M.D.
Commissioner, Department Mental Hygiene
and Hospitals

Who Are the Patients in Our Mental Hospitals?

NOTE: This is the third in a series of articles on the type of patients resident in the mental hospitals in Virginia. These articles are prepared by the Department's Statistician as information about the different aspects of the hospital population. Charts which will show a graphic picture of the various characteristics of these patients, are also included. It is hoped that this will be valuable information to the medical profession in Virginia.

JOSEPH E. BARRETT, M.D.
Commissioner

As brought out in the two previous articles, the long term patient is a very large problem to the administration of the mental hospitals. Records show that the functional psychoses group are a large part of the group remaining for a long period of time and building up the old age groups. The diseases of the senium are almost a third of the admissions, but in general they are hospitalized a short time and are a much smaller proportion of the patients in residence at any one time.

The functional psychoses group comprise 54.0% of the total population—35.9% (4,062 patients) schizophrenics, 15.1% (1,704 patients) manic-depressive, and 3% (343 patients) involutional, of a total of 11,303 patients. (Because of the small percentage, the involutional group will not be developed in detail.) The diseases of the senium comprise 13.1% (1,475 patients) making a total of the two large groups of 67.1% of the total population.

The schizophrenics are the largest diagnostic population group in the hospitals—4,062 or 35.9% of the total of 11,303 patients as of June 30, 1955. This group is one of the larger problems of build up as 69.8% or 2,835 patients have been on record five years or longer. (Chart No. 1) Considering the consensus of opinion that after two years or longer hospitalization, treatment procedures become less effective, there are 81.9% of these patients in this group. This leaves only 18.1% (735 patients) who have been on record less than two years where treatment may be more or less effective. Many of these, however, will remain and be part of the long term group.

Contributed by EDNA M. LANTZ, Statistician, Department Mental Hygiene and Hospitals.

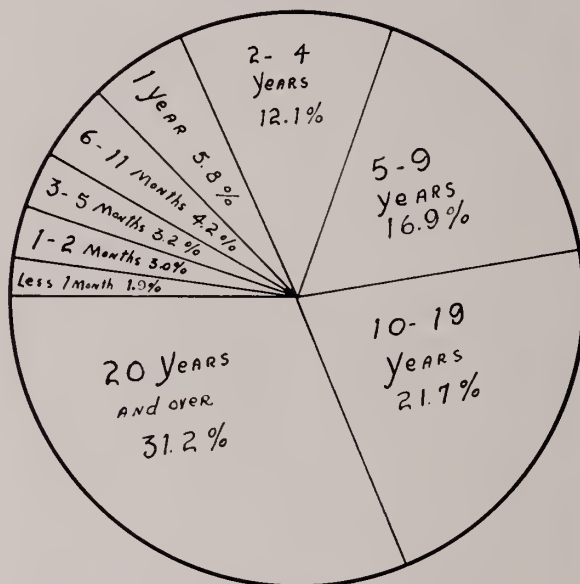


CHART NO. I—Percentage distribution of length of time on record of schizophrenics in hospitals as of June 30, 1955.

The manic-depressives—the second largest diagnostic group—comprised 15.1% of the total population of 11,303 patients as of June 30, 1955. Of this group, 76.0% or 1,295 patients have been on record five years or longer. (Chart No. II) Again, with the

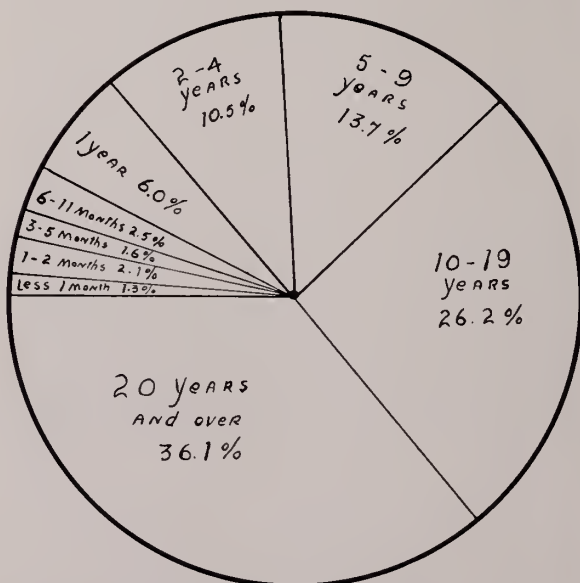


CHART NO. II—Percentage distribution of length of time on record of manic-depressives in hospital as of June 30, 1955.

premise that after two years the possibility of leaving the hospital is decreased, there are 86.5% who have been on record two years or longer with little possibility of being released. This leaves only 13.5% or 230 patients on record less than two years with the expectancy that some of these will be remaining for longer periods of time.

In any disease, mental or physical, the earlier treatment begins at the onset of the disorder, the better the prognosis. Recognizing the symptoms of a mental disorder and instituting early treatment will have its beneficial effect on the possibility of shorter hospitalization. Many cases admitted to the hospitals have already become severe and the chance of this type of patient responding to treatment is greatly reduced.

The diseases of the senium, cerebral arteriosclerosis and senility, are the next largest diagnostic group resident in the mental hospitals. These patients are in the aged group when admitted and, therefore, the build up is not so large. The greatest problem is the large percentage of admissions in this group. Of the 1,475 patients, 13.1% of the population of 11,303 as of June 30, 1955, 24% or 354 have been on the records five years or longer. (Chart No. III) There are 26.2% who have been on record from two to four years. Therefore, 50.2% have been on record two years or longer. Those being on record less than two years comprise 49.8% or 734 patients, many of which will not carry over into the five year or longer period because of deaths. Less than 10% have been on the records ten years or longer. How-

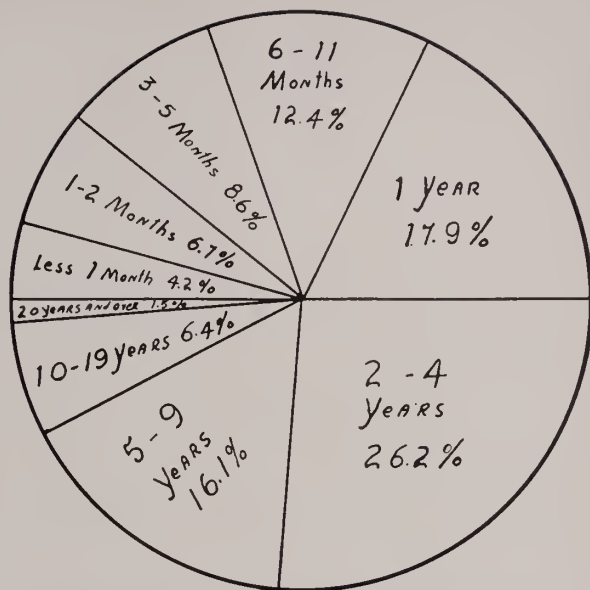


CHART NO. III—Percentage distribution of length of time on record of cerebral-arteriosclerotics and seniles in hospital as of June 30, 1955.

ever, they have added to the problem of long hospitalization of many patients. Even though this type of elderly patient becomes, for the most part, easily manageable in the hospital setting, they are a decided care because of their incapacities.

The mental disorder of cerebral arteriosclerosis cannot be expected to be lessened materially until an effective treatment is developed to prevent arteriosclerosis as a disease of the circulatory system.

The next article will bring out the age groups in specific diagnostic groups.

'56 Radio Plans.

The American Medical Association's new radio transcription series will be livened up with lots of music during 1956, the Bureau of Health Education announces. The Bureau plans to release three new series of 13 programs each for use by medical societies over local radio stations. The first will feature a "music with your meals" theme, with an instrumental trio rendering folk songs, ballads and semi-classics. Dr. W. W. Bauer, Bureau director, will give the medical commentary based on 13 different phases of diet and nutrition.

The second series, also on a musical theme, will be entitled "Summer Serenade" and will deal with summer situations such as having fun while avoiding illness and accidents. This series is intended as a replacement for previous series dealing with summer health topics. Format and subject matter for the third series have not been selected, although it will be either musical or dramatic in character.

Probable release dates for the new program will be April 1, August 1 and November 1. More specific details will be announced later.

MACK I. SHANHOLTZ, M.D.
State Health Commissioner of Virginia

Present Status of Prophylaxis for Rheumatic Fever

The State Health Department initiated its Rheumatic Fever Program in May 1940. Since that time certain trends have become better formulated with reference to preventive measures against this disease, especially with respect to recurrence. The Rheumatic Fever Program has consistently kept up with new developments in this field and has carried out careful clinical research in connection with its own case load.

The close association between beta hemolytic streptococci infections and the subsequent development of rheumatic fever is now generally accepted. It is therefore of the greatest importance to the rheumatic fever patient that all beta hemolytic streptococci infections be prevented. It is felt that this prevention can be effectively accomplished by routine uninterrupted administration of penicillin. It is fortunate that no beta hemolytic streptococci have so far been shown to be resistant to penicillin and it is a very rare patient who will develop any allergy to oral penicillin.

Studies done in our State Program clinics have shown that approximately 62% of rheumatic fever cases who were not maintained on prophylactic therapy developed recurrences. When the sulfonamides were used as a prophylactic measure this recurrence rate was cut to between 2% and 3%. On the present penicillin prophylactic routine the rate has been cut to approximately 1%. The dramatic changes in the recurrence rate are reflected also in decreased hospital time for patients and decreased cardiac damage over a long period. The prophylactic routine as now used in our State Rheumatic Fever Clinic is as follows:

1. Oral penicillin tablets, 200,000 units each are given 30 minutes before breakfast and 30 minutes before supper, daily throughout the year

as soon as the patient is diagnosed as rheumatic fever and continued indefinitely. This is perhaps the simplest and most effective method of prophylaxis and is now being used on many hundreds of patients in Virginia.

2. Intramuscular benzathine penicillin (Bicillin) may be given 1,200,000 units intramuscularly every 28 days. This will work in exactly the same way as oral penicillin in preventing the streptococcal infections and maintaining a low penicillin blood level for one month. It is particularly of value when patients cannot be trusted to take oral medication. It is also less expensive than oral penicillin. There is slight local pain and tenderness about 25 hours after the inoculation but this has not been a serious problem. Fifty patients so treated for two years in the Richmond Rheumatic Fever Clinic showed no recurrences.
3. Sulfonamides notably sulfadiazine, were given 0.5 gm. twice a day to adults and relatively smaller dosages to children for prevention. This required careful observation of blood count and urine and was used for several years. We have now almost entirely substituted oral penicillin because of additional safety as well as greater efficacy.

The American Heart Association recently published criteria set up by Dr. Duckett Jones for the diagnosis of rheumatic fever. All physicians will find these criteria most helpful. The American Heart Association has also recently distributed to physicians a wallet card entitled "Prevention of Rheumatic Fever and Bacterial Endocarditis through Control of Streptococcal Infections." The prophylactic measures on this card were based on Recommendations of the Committee on Prevention of Rheumatic Fever and Bacterial Endocarditis, the Council on Rheumatic Fever and Congenital Heart Disease, and the American Heart Association.

MONTHLY REPORT OF THE BUREAU OF
COMMUNICABLE DISEASE

	Feb- ruary 1956	Feb- ruary 1955	Jan.- Feb. 1956	Jan.- Feb. 1955		Feb- ruary 1956	Feb- ruary 1955	Jan.- Feb. 1956	Jan.- Feb. 1955
Brucellosis -----	1	3	1	4	Poliomyelitis -----	2	3	2	5
Diphtheria -----	9	2	10	3	Rabies (In Animals) --	41	49	73	110
Infec. Hepatitis -----	50	185	112	347	Rocky Mt. Spotted Fever	2	1	4	2
Measles -----	1575	419	2532	772	Streptococcal Infections--	510	1090	1087	1845
Meningococcal Infections	11	10	17	18	(Incl. Scarlet Fever)				
		Not		Not	Tularemia -----	1	3	2	4
Meningitis (Other) ----	3	classi- fied	15	classi- fied	Typhoid Fever -----	1	7	1	10

Breath-Holding.

Frequent severe spells of breath-holding by a small child are a sign of "profound insecurity" often resulting from conflict with his parents. Drs. Alan-son Hinman, Winston-Salem, N. C., and Lloyd B. Dickey, San Francisco, said in the January American Journal of Diseases of Children, published by the American Medical Association, that breath-holding is an early form of temper tantrum—a primitive expression of anger or frustration. A child may become frustrated because he is unable to cope with the world or because he feels insecure with his parents. In his helplessness, having no means of adequate expression, he reacts with rage "so overwhelming" that he loses control over himself and goes into a spell.

Treatment must be directed toward a solution of the family conflict and helping the parents understand the emotional basis of the spells. The older methods—plunging the child into cold water or ignoring him during a spell or pointing out to him that similar behavior will be met with "harsh, if not painful, measures"—certainly should be avoided.

The little child's only way of protesting against a frustrating world is by crying and throwing himself around. Anything approaching the same kind of behavior on the part of adults will aggravate the situation. "Every effort should be directed toward removing the sources of conflict, such as coercion in eating, overly strict or too early bowel and bladder training, pressure in the matter of naps and bedtime, and other premature and excessive demands on the child."

The parents should be reassured that the child can receive no physical or mental damage from the spells themselves. They should be helped to under-

stand the difference between discipline and punishment and to establish a "tolerant and consistent disciplinary regime". In some cases the parents may need help in adjusting their own emotional problems.

Breath-holding spells are sometimes confused with epileptic seizures and other lesser-known disorders. Epileptic attacks and breath-holding spells can be distinguished because of the difference in "crys". Convulsions in breath-holding, "which are rare, anyway," are mild compared to the "dramatic" ones of epilepsy, and the epileptic seizures usually do not follow some specific event such as a fall or frustration. If any "real doubt" exists, a thorough medical study should be undertaken.

The physicians outlined 11 cases among children ranging in age from one year to five years, seven months. There was only one over two and a half, and the average age, excluding the oldest, was approximately one year, nine months. The age at onset of the spells ranged from three to 24 months, the average being a little over 10 months. The frequency of spells ranged from eight spells in a year to as many as 10 or 15 a day.

In several cases, strained relationships within the family were obvious. In four cases, there were conflicts about feeding, and in three, about toilet training. In three families there was frustration from relatives living in the family, and in two there was marital friction. In at least two, the parent seemed to be overly demanding and strict. There was a family history of breath-holding spells in four.

In six of the children the spells ceased in a few months. One was much better two years later, and one, according to the family doctor, became an epileptic. There was no follow-up on three of the children.

The Medical Society of Virginia . . .

Council Minutes

The meeting of Council of The Medical Society of Virginia was called to order by Dr. James P. King, President, at 11:00 a.m. on Sunday, February 19, 1956, at the Farmington Country Club, Charlottesville. A quorum was announced. Attending were Dr. John P. Lynch, Dr. A. A. Creecy, Dr. Walter P. Adams, Dr. Benjamin W. Rawles, Jr., Dr. Wilkins J. Ozlin, Dr. Louis P. Bailey, Dr. Frank A. Farmer, Dr. Harold W. Miller, Dr. McLemore Birdsong, Dr. James P. Williams, Dr. Harry C. Bates, Jr., Dr. Harry J. Warthen, Jr., Dr. Mack I. Shanholtz and Dr. Carrington Williams. Also present were Mrs. Mervin W. Glover, President of the Woman's Auxiliary to The Medical Society of Virginia, Dr. John T. T. Hundley, Speaker of the House, Dr. Allen Barker, Vice-Speaker of the House, Dr. Vincent W. Archer, Past-President, Dr. H. B. Mulholland, Past-President, and Dr. K. D. Graves, Secretary of the State Board of Medical Examiners.

It was announced that a letter had been received from the Medical Society of the District of Columbia expressing approval of plans for the 1957 Annual Meeting. The meeting will be held at Washington's Hotel Shoreham from October 27 to October 30.

Considered next was a recommendation from the Medical Service Committee that the Society cooperate with Blue Cross-Blue Shield in its educational campaign. It was suggested that plaques and other material be sent to the membership with an accompanying letter from Dr. King. It was hoped that this mailing would do much to eliminate some of the abuses of Blue Cross-Blue Shield and ultimately cut down waste of the medical care dollar. It was moved and carried that the Society cooperate with Blue Cross-Blue Shield on this project.

A special crash injury study involving 1956 model automobiles was discussed. The study, sponsored by the Cornell University Medical School, will need the assistance of the State Office in collecting data from physicians in eight eastern counties. It was believed that the additional work load could be ab-

sorbed without too much difficulty. The project was approved.

Council was advised of an offer by the Walter Reed Memorial Association to erect a permanent wooden marker near the birthplace of Dr. Walter Reed. Pictures of the proposed marker were shown, and it was the consensus that it would be most attractive and worthwhile. It moved and adopted that the offer of the Walter Reed Memorial Association be accepted.

Dr. Rawles offered a progress report on legislation before the General Assembly. Among legislation covered were S.B. 215, the tuberculosis quarantine bill, and the proposed alcoholic rehabilitation program. During the ensuing discussion it was brought out that the Society actually had two committees studying the treatment of alcoholics and that there was a wide area of disagreement between the two. It was hoped that special committees and regular committees could, in the future, meet together and draw up one set of recommendations.

It was then moved that Council reaffirm its previous action and that of the House of Delegates with reference to approval of the tuberculosis quarantine bill. The motion was adopted.

The matter of postgraduate scholarships for nurses was raised and it was the consensus that a decision on such legislation should be left to the Legislative Committee.

Dr. Graves commented on the bill which would grant new privileges to naturopaths. It was moved and passed that the Legislative Committee should vigorously oppose this bill.

A proposed conference on the problems of the aging and the chronically ill was explained by Dr. Mulholland, who stressed the seriousness of the matter. Dr. Mulholland suggested that the conference be a joint effort of the Society and the Virginia Council on Health and Medical Care. It was also suggested that the conference be modeled somewhat after that presented two years ago on the medi-

cally indigent. A motion was made and passed that the Society co-sponsor such a conference with the Virginia Council on Health and Medical Care, and that \$250 be appropriated for this purpose.

Considered next was a proposal by the AMA that state medical societies conduct a survey among their memberships with reference to social security. The AMA, at the present time, is on record as opposing the compulsory coverage of physicians under social security, although it does not object to voluntary coverage under the system. Dr. Archer thought that any such survey should be carefully planned and conducted, and it was generally agreed that there existed a great need for education on the subject. It was moved and passed that such a survey be conducted.

It was reported that medical office personnel were planning a state organization of medical assistants the first meeting to be held in Lynchburg on February 25. It was the consensus that the Society should follow the progress of this organization with interest and offer assistance and guidance whenever possible.

A progress report from the Special Committee on Society Headquarters Improvement was presented by Dr. Rawles. He covered the needs of the Society with reference to meeting space, parking space, etc., and reported his findings on the cost of a new structure. There was considerable discussion on the advisability of the Society expanding its facilities at the present time and it was the consensus that further study should be undertaken. It was moved that Dr. Rawles' Committee should bring in a comparative report on the cost of a new structure, and cost of altering and improving the present headquarters building. This motion was adopted.

The Society's professional liability insurance program was reported to be making satisfactory progress, and it was mentioned that the Saint Paul-Mercury Indemnity Company had received nearly 400 applications. It was brought out that every effort is being made to visit component societies and answer any questions members might have.

Dr. Hundley, Speaker of the House, reported that he and Dr. Barker has spent considerable time considering a proper procedure for the House of Delegates. The recommended procedure was covered and it was believed that it would certainly clarify a num-

ber of questions which had caused some misunderstanding in the past. It was moved that the procedure be recommended to the House of Delegates on October 14. The motion was passed.

Consideration was given to a request by the Subcommittee on Industrial Health that a digest of workmen's compensation laws be published and distributed to the membership. It was pointed out that such a publication could not easily be mailed as a supplement to the Virginia Medical Monthly and that perhaps a separate mailing would be advisable. It was then moved that the digest be published and sent to the membership at such time as thought best by the Sub-Committee on Industrial Health. The motion was adopted.

Council was then advised of a two day conference for medical society attorneys scheduled for Chicago in April. The purpose of the meeting will be to discuss mutual legal problems of organized medicine and to consider several recent court decisions of importance to medical societies. There was complete agreement that Mr. Duval should attend the meeting and that his expenses be borne by the Society.

Council was advised that there existed in certain areas of the state feeling that perhaps Society dues should be increased for the purpose of raising funds for the American Medical Education Foundation. It was explained that this proposal had been rejected twice previously by the American Medical Education Foundation Committee. It was believed that any further consideration should be left to the Committee.

Dr. Warthen voiced the opinion that it might be well to consider certain changes in connection with the official seal of the Society—especially with reference to the date appearing thereon. A motion was introduced recommending the reappointment of the Seal Committee for the purpose of further study and recommendations. The motion carried.

Dr. Rawles stated that professional advice would undoubtedly be needed if a proper study of the headquarters building was to be accomplished. Council was in agreement and it was moved that any reasonable outlay of funds be authorized for professional appraisal and advice. The motion carried.

There being no further business, the meeting adjourned.

ROBERT I. HOWARD,
Secretary

New Members

For the past several years, the names of new members of The Medical Society of Virginia have been published annually as a part of the report of the Membership Committee. However, it has been felt that our older members would like to know the names of the newer members and in the future a list will be published each month.

The following are new members who have been received into the Society since the publication of the list in the October issue of the Monthly:

James C. Andrews, M.D., Charlottesville
Charles P. Barrett, M.D., Fredericksburg
Ardwin H. Barsanti, M.D., Falls Church
Bradley D. Berry, M.D., Grundy
Ralph Brown, M.D., Charlottesville
John C. Buchanan, M.D., Clintwood
Walter E. Bundy, Jr., M.D., Richmond
Melvin N. Burke, M.D., Norfolk
Lloyd A. Busch, M.D., Fredericksburg
Louis H. Calisch, M.D., Danville
William B. Cecil, Jr., M.D., Pearisburg
C. C. Choi, M.D., Alexandria
William B. Crawford, Jr., M.D., Woodstock
Oscar B. Darden, Jr., M.D., Bedford
Patricia R. Denton, M.D., Richmond
Douglas W. Eastwood, M.D., Charlottesville
Leo J. Falk, M.D., Charlottesville
David I. Farnsworth, M.D., Burkeville
Robert J. Faulconer, M.D., Norfolk
Norman A. Gililland, M.D., Alexandria
Mervin W. Glover, M.D., Arlington
Faith F. Gordon, M.D., Richmond
O. T. Graham, Jr., M.D., Richmond
Robert C. Green, Jr., M.D., LaCrosse
James K. Hall, Jr., M.D., Richmond
Zoltan Halmai, M.D., Portsmouth
Tibor Ham, M.D., Vienna
Edward W. Hickson, M.D., Rustburg
Norman N. Hill, Jr., M.D., Norfolk
Walter R. Holland, M.D., Lynchburg
Guy F. Hollifield, M.D., Charlottesville
Charles E. Horton, M.D., Norfolk

Howard M. Horton, M.D., Warrenton
L. M. Howard, Jr., M.D., Lynchburg
Robert L. Howard, M.D., Arlington
James M. Hutcheson, Jr., M.D., Richmond
L. Meredith Johnson, M.D., Charlottesville
John F. Jonas, M.D., Clifton Forge
R. L. A. Keeley, M.D., Roanoke
Henry T. Kulesher, M.D., Falls Church
William D. Lewis, M.D., Martinsville
Jubran G. Mamo, M.D., Charlottesville
Robert E. McConnell, Jr., M.D., Middleburg
Mary V. McIndoo, M.D., Arlington
A. W. D. Mears, M.D., Belle Haven
John McM. Mennell, M.D., Washington, D. C.
Robert E. Mitchell, Jr., M.D., Richmond
William B. Moncure, M.D., Richmond
Pamela R. Moore, M.D., Falls Church
Richard J. Mulvaney, M.D., Falls Church
Charles B. Mundy, M.D., Dahlgren
Hernando Munoz, M.D., Norfolk
Herman M. Nachman, M.D., Richmond
John J. O'Connor, M.D., Alexandria
Thomas P. Overton, M.D., Richmond
Earl T. Owen, M.D., Lynchburg
Heth Owen, Jr., M.D., Richmond
Walter G. Parsel, M.D., Norton
Thomas J. Penn, M.D., Grundy
Joseph A. Provenzano, M.D., Annandale
John W. Roark, M.D., Charlottesville
Joseph O. Romness, M.D., Arlington
A. J. Russo, M.D., Portsmouth
George O. Shipp, M.D., Bayside
Bertram C. Snyder, M.D., Arlington
Peter Soyster, M.D., Falls Church
James H. Stallings, Jr., M.D., Arlington
Henry W. Stinson, M.D., Warrenton
Ralph M. Thompson, M.D., Alexandria
W. Basil Thompson, M.D., Radford
William W. Thompson, M.D., Radford
Joe E. Tittle, M.D., Pennington Gap
William T. Tucker, M.D., Richmond
Thomas N. Warren, M.D., Clifton Forge
Louise O. Wensel, M.D., Fishersville
J. A. White, M.D., Virginia Beach
Carl P. Wisoff, M.D., Norfolk

Book Announcements . . .

Books received for review are promptly acknowledged in this column. In most cases, reviews will be published shortly after the acknowledgment of receipt. However, we assume no obligation in return for the courtesy of those sending us same.

Experimental Tuberculosis. Bacillus and Host with an Addendum on Leprosy. Ciba Foundation Symposium. G. E. W. Wolstenholme, O.B.E., M.A., M.B., B.Ch., and Margaret P. Cameron, M.A., A.B.L.S., Editors. Assisted by Cecilia M. O'Connor, B.Sc. Little, Brown and Company, Boston. 1955. xii-396 pages. With 69 illustrations. Cloth. Price \$9.00.

Personal Health Measures and Immunization. Medical Department, United States Army. Preventive Medicine in World War II. Volume III. Editor in Chief, Colonel John Boyd Coates, Jr., M. C. Editor for Preventive Medicine, Ebbe Curtis Hoff, Ph.D., M.D. Assistant Editor, Phebe M. Hoff, M.A. Office of the Surgeon General, Department of the Army, Washington, D. C. 1955. xiv-394 pages. Illustrated. For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C. Price \$3.25 (Buckram).

Vascular Surgery. Medical Department, United States Army. Surgery in World War II. Edited by Daniel C. Elkin, M.D., and Michael E. DeBakey, M.D. Office of the Surgeon General, Department of the Army, Washington, D. C. 1955. ix-465 pages. Illustrated. For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C. Price \$4.25 (Buckram).

On the Nature of Man. An Essay in Primitive Philosophy. By DAGOBERT D. RUNES. Philosophical Library, New York. 1955. 105 pages. Price \$3.00.

White Coolies. By BETTY JEFFREY. Illustrated by J. P. L. Kickhefer. Philosophical Library, Inc., New York. 1955. 204 pages. Price \$3.75.

Hypnotic Suggestion. Its Role in Psychoneurotic and Psychosomatic Disorders. By S. J. VAN PELT, M.B., B.S., President of the British Society of Medical Hypnotists. Philosophical Library, New York. 95 pages. Price \$2.75.

Environmental Hygiene. Volume II. Medical Department, United States Army. Preventive Medicine in World War II. Editor in Chief, Colonel JOHN BOYD COATES, JR., M.D.; Editor for Preventive Medicine, EBBE CURTIS HOFF, Ph.D., M.D. Office of the Surgeon General, Department of the Army, Washington, D. C., 1955. vii-404 pages. For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C. Price \$3.50.

This is the first volume to be published in the Preventive Medicine series of the official history of the Army Medical Department in World War II. Volume I, which will deal with organization and administration, will appear at a later date. This present volume contains chapters on such important

subjects as: Food Management, Housing, Water Purification, Waste Disposal, Control of Insects and of Rodents, Foreign Quarantine, and Preventive Medicine in Ports of Embarkation and for Persons in Transit. Each chapter was separately prepared by a writer peculiarly qualified by his wartime experience in the Army and his present distinction in the particular field.

Preventive Medicine "came to its own" in World War II, under the leadership of the late Brigadier General James S. Simmons. This volume draws attention to the growing importance of correlation with the Medical Department of such activities as the building projects of the Engineers, the sewage and water problems of the Sanitary Engineers, and the procurement of food by the Quartermaster Corps. The only way to measure the success of this cooperation is by the good health record of the Army as a whole.

On reading this book, one is made to realize how gigantic was the task which the leaders of our Armed Forces, and particularly the Medical Officers, faced in this first really global war. Not only were they called upon to fight the enemy, their responsibility was also to feed, clothe, and house their men, to transport them in ships, planes and trains all over the world, and to protect them against diseases which were not experienced at home, in climates and under conditions which were equally strange to them all. The protection of the soldiers' environment is considered here. Every difficulty in every theater is by no means considered, but the story is told from the viewpoint of those who were responsible for the whole activity in the Surgeon General's Office. Events in the individual theaters are discussed when they presented peculiar problems.

These responsibilities called for extensive research in many fields. The chapter headed "Research Background of Insect and Rodent Control" describes a typical situation where urgent and practical investigation were initiated which culminated in the development of DDT, one of the major successes of wartime research. A similar background of scientific exploration is described in the chapter on Foreign Quarantine. This was the kind of research which demanded a quick and useful answer to immediate questions.

Travel through allied and occupied countries pre-

sented many difficulties which called for diplomacy and tact as well as scientific knowledge on the part of members of the Preventive Medicine Service. Characteristic instances were those in Brazil and India. In Brazil there was real and justified fear lest malarial mosquitoes should be reintroduced into the country by airplanes from our West African bases. The Indian Government was deeply concerned lest yellow fever should be carried to their country by our soldiers entering it from endemic areas. These differences over aircraft inspection and quarantine regulations were eventually smoothed out,

but understanding and sympathy were as important here as medical knowledge.

This History of Preventive Medicine, U.S. Army, World War II, is being edited, under contract with the Surgeon General's Office, by Dr. Ebbe C. Hoff at the Medical College of Virginia. The project is under the guidance of an Advisory Editorial Board, Chairman Dr. Stanhope Bayne Jones, and the final processing for publication is in the hands of the Historical Unit, S.G.O. It is understood that nine volumes in all will be presented to complete this series.

Diphtheria Control.

A two-year Canadian study indicates that there are good ways of stopping up the "chinks in our immunization armor" against diphtheria. Two important methods are inoculation within the first six months of life and the use of "guinea pig tests."

The study, by Louis Greenberg, Ph.D., Ottawa, and Rene Benoit, M.D., Montreal, appears to be the first real proof that the guinea pig tests are an accurate way of telling how effective an individual diphtheria toxoid will be in humans.

The researchers gave diphtheria shots to infants from two to six months old and to guinea pigs. Comparison of the results in the two groups "clearly" showed that the guinea pig test is a valid indicator of a toxoid's value for man, they said in the January 14th Journal of the American Medical Association.

Lack of standardization of various companies' products and occasional outbreaks of the disease indicate that there are still some weaknesses in the control of diphtheria. "There is, therefore, every reason for continued and increasingly vigorous programs of immunization. For this purpose, it is important that only the most effective toxoids be used".

These can be obtained by utilizing the guinea pig test, establishing the most effective dose for humans, and setting up a program of toxoid standardization.

The study showed that the response in infants to the diphtheria toxoid was related to the size of the dose given—the bigger the dose, the greater the immunizing effects. However, too large doses are wasteful and sometimes can produce an adverse effect. Further study is necessary to establish the most effective dose for man.

Alum adsorbed toxoids should be used instead of plain fluid types for more effective control. The scientists found that the fluid preparations, even when given in three doses, were not as effective as the alum types. In addition, many infants do not return to health clinics for their second or third inoculations.

Most newborn babies have a natural immunity to diphtheria during the first months of life, but only 41 per cent of 237 infants, ranging in age from two to six months, studied had any natural immunity.

Their study added further proof of the "validity and desirability" of starting the immunizing of infants during the first six months of age.

Dr. Greenberg is chief of the Biologics Control Laboratories, Laboratory of Hygiene, Department of National Health and Welfare, Ottawa. Dr. Benoit is assistant professor of pediatrics at the University of Montreal and chief pediatrician at Creche de Misericorde, an orphanage.

Woman's Auxiliary

<i>President</i> -----	Mrs. M. W. Glover, Arlington
<i>President-Elect</i> -----	Mrs. Lee S. Liggan, Irvington
<i>Vice-Presidents</i> -----	Mrs. Charles A. Easley, Danville
	Mrs. C. C. Hatfield, Saltville
	Mrs. John St. George, Portsmouth
<i>Recording Secretary</i> -----	Mrs. J. R. Grinels, Richmond
<i>Corresponding Secretary</i>	Mrs. Robert Detwiler, Arlington
<i>Treasurer</i> -----	Mrs. William Grizzard, Petersburg
<i>Publication Chairman</i>	
	Mrs. William J. Weaver, Alexandria

Warwick-Newport News.

The urgent need for nurses and the resultant need to encourage young women to choose nursing careers should be of great concern to everyone connected with the field of medicine.

The Women's Auxiliary to the Warwick-Newport News Medical Society has felt this need and has therefore selected nurse recruitment as its major project. The program as developed by the Auxiliary is divided into four parts: the Future Nurses Clubs, the rolling library, the annual picnic, and the scholarships.

The Auxiliary sponsors two Future Nurses Clubs, one at Warwick High School with thirty-six members and one at Newport News High School with thirty-two members. These clubs have programs which acquaint the students with the variety of opportunities in the nursing field. Educational tours are made to hospitals and clinics.

The special project of the Warwick group, sponsored by Mrs. Thomas Caldroney of the Auxiliary and Mrs. Bessie Garrett, the school nurse, is to assist in the Pediatric Ward at Riverside Hospital, both in helping with occupational therapy and in conducting a drive to provide more toys and play equipment for the children.

The girls from the Newport News High School club help with the rolling library at Riverside Hospital. Some also work as Nurses' Aides at Mary Immaculate Hospital. Mrs. Floyd Nesbitt is the sponsor, with Mrs. W. B. Williams, school nurse, as faculty advisor. The rolling library is a book and magazine lending service which provides reading material for hospital patients by means of a portable cart. These carts are taken through the Riverside Hospital by girls from the Future Nurses

Clubs of Newport News High School, and girls from St. Vincent's Catholic High School serve at Mary Immaculate Hospital. Mrs. Vincent Lascara, assisted by Mrs. Cecil Evans and Mrs. James Lee, is the Auxiliary Chairman of this project.

The annual picnic held in September, is for the members and faculty advisors of both Future Nurses Clubs and for the preclinical students of Mary Immaculate and Riverside Hospital Schools of Nursing, with faculty advisors. Mrs. Murray Dick and the Nurse Recruitment Committee are in charge of arrangements, assisted by the entire membership of the Auxiliary.

Mrs. Joseph Carney is the chairman of the final phase of our nurse recruitment program, the awarding of two one hundred dollar scholarships to freshmen nursing students, one at Riverside and one at Mary Immaculate. The girls to whom these scholarships are given are selected according to the need and ability.

MRS. M. F. SHERILL.

Alexandria.

The Auxiliary to the Medical Society of Alexandria held the January meeting at the home of Mrs. C. Albert Hudson. Main business topic discussed was the advisability of the auxiliary members operating a photographic service in the newborn nursery at Alexandria Hospital. Following discussion this proposal was voted upon and turned down.

On February 11 a buffet supper was held at the home of Dr. and Mrs. James M. Moss. A large number of members and their husbands attended and enjoyed the stunning array of favorite dishes, for each auxiliary member had prepared her special recipe to bring to the party. Entertainment provided by members and husbands followed supper and the party was judged a great success.

The February business meeting was held at the home of Mrs. Colin MacRae where plans for the coming Card Party and Fashion Show were reviewed by Mrs. Robert H. Anderson, Ways and Means chairman. Dr. Thomas McGough, Alexandria Public Health Officer, spoke on the subject: "How the Health Department spends money to save money through preventive medicine". In his interesting

talk he explained how the Health Department work correlates with that of the physician in the community.

FRANCES B. MILLS (MRS. JAMES D.)

Norfolk.

The Auxiliary to the Norfolk County Medical Society held its annual Doctor's Day dinner-dance at the Norfolk Yacht and Country Club on February the 1st. Mrs. John Hill served as chairman and was aided by Mrs. William P. Sellers III and Mrs. Carl Cooley. Red carnations were presented to each Doctor. There were 190 present.

On Friday morning the 10th of February there was a coffee hour in honor of the wives of the internes and residents in this area. This was held at the home of Dr. Forrest White.

MRS. A. L. KRUGER.

Fairfax.

The monthly meeting of the Auxiliary to the Fairfax County Medical Society was held on February 7th at the Court House Country Club. Luncheon was served and a business meeting followed. Discussion was heard concerning the formation of a Hospital Committee. Volunteers were requested to serve on the Hospitality Committee for Clinic Day to be held April 8th in Alexandria.

The speaker for the afternoon was Dr. Harold Kennedy our County Health Director. He enlightened us on the polio vaccine program and other public health problems of Fairfax County.

MARGARET L. BERNHART.

Wise.

The Auxiliary of the Wise County Medical Society met at the Hotel Norton on February 8th for a dinner meeting. After the opening address by Mrs. C. H. Henderson, President, Mrs. F. S. Jones, Program Chairman introduced the speaker for this occasion, Mrs. Lois Tracy. Mrs. Tracy, well known painter and artist of this area, gave a highly interesting and instructive talk on "Contemporary Painting," illustrated with some of her paintings. Subsequently, Mrs. C. H. Henderson opened the business meeting. Reports of the various Chairmen were heard. Mrs. H. H. Short, Chairman of Nurse Recruitment, reported that a book on Nursing is to be placed in the Library of the Norton High School and speakers are to address the graduating classes on the nursing career. The goal is to win over 10% of the graduates to this end.

A very enjoyable social hour followed. Those present besides members of the Auxiliary, were the new members, Mrs. W. F. Schmidt and Mrs. C. E. Swecker as well as Mrs. G. Rein, Mrs. C. Propper and Mrs. M. Espinola, wives of doctors in the new Wise Memorial Hospital.

I. V. BENE (MRS. EUGENE)
Publicity Chairman

Richmond.

The Auxiliary to the Academy of Medicine crowded quite a lot into the month of February. On the 11th, the annual dinner dance was held at the Commonwealth Club, honoring Doctor's Day. It was a gala occasion under the co-chairmanship of Mrs. Virgil May and Mrs. William Deyerle.

On February 28, the Auxiliary heard a most enjoyable and informative panel discussion on European and Mid-Eastern Trends in Medicine, as seen by Drs. Charles M. Caravati, William T. Sanger, and Charles L. Outland. (Unfortunately, the fourth panelist, Dr. Donald Daniel was ill at the time.) A very large attendance marked this monthly luncheon meeting which was planned by Mrs. Custis Coleman. The discussion delved into the impact of Socialized Medicine on laymen as well as on the profession, preventive medicine particularly as pertained to child care, the quality of medical education, and the adequacy of medical care and research progress in different countries.

MRS. CARL W. MEADOR.

Alleghany-Bath.

In May, 1955, the Alleghany-Bath County Medical Society and their wives, met for dinner, at Three Hills in Warm Springs. As the doctors held their meeting after dinner, the women held their first organizational meeting, with the help of Mrs. Maynard Emlaw and Mrs. M. W. Glover.

Mrs. Louis A. Houff was elected president, Mrs. J. M. Emmett president-elect, Mrs. H. G. Hudnall vice-president, Mrs. R. L. Claterbaugh corresponding-secretary, Mrs. M. I. Hanna recording-secretary, Mrs. S. P. Hileman treasurer and Mrs. R. P. Hawkins, parliamentarian.

At the next meeting in September, Dr. J. M. Emmett, chief-of-staff of the C. and O. Hospitals, spoke to us on the need and importance of medical insurance plans and the value of an Auxiliary to the County Medical Society.

In November, Dr. Esther Fagan, Public Health Service Officer of Alleghany County, spoke on Health

Education at the Alleghany Memorial Hospital in Covington.

At the C. and O. Hospital in January, Miss Louise Reynolds, Superintendent of Nurses, spoke on Nurse Recruitment and showed a most interesting film on the subject.

As projects, the Auxiliary has undertaken to write biographies of their husbands to put in a Medical History or "log" of this area.

The Auxiliary started and has sponsored a most enthusiastic Intermediate Girl Scout Group as a Hospital Aide Troup making dressings in the C. and O. Hospital.

Surplus medical samples have been collected and sent to Sheltering Arms Hospital in Richmond.

The big project has been to get a book and "personal shopping" cart rolling. With the help of volunteers from the Woman's Club and other civic groups in Clifton Forge, we expect to start in September. Two such carts are already giving service in the Alleghany Memorial Hospital in Covington. It is hoped that this will fill a real need for the patients in the local hospitals.

FANNIE R. WILLIAMS
(MRS. ARMISTEAD D. WILLIAMS)

Northern Neck

The Mid-Winter business meeting of the auxiliary was held January 17th at Lowery's Grill in Warsaw, with thirteen of our twenty four members present. The Doctor's Day committee is to make plans for a dinner for our doctors in April. This was a luncheon meeting and we all enjoyed getting together and making plans for the auxiliary.

RUTH L. GRAVATT.

Fairfax

The Auxiliary to the Fairfax County Medical Society held its monthly meeting, January 3rd, at the Fairfax County Health Center. A dessert tea was served by Mrs. Thomas Haggerty and her committee and a business meeting followed. After much discussion it was decided that future meetings would be held at the Court House Country Club at 12:30 P.M., the first Tuesday of each month. Luncheon will precede the program.

Any wives of doctors interested in becoming members should contact Mrs. L. A. Jacklin at Ja. 8-8585. Associate members will also be welcomed.

MARGARET BERNHART.

Leave Bandages Off.

Further evidence of the safety and practicality of leaving clean chest and abdomen surgical wounds uncovered by dressings was given today by three Des Moines, Iowa, Veterans Administration hospital physicians. They said in the February 18 Journal of the American Medical Association that clean wounds without dressings appear to heal more rapidly and with less reaction than covered wounds.

In addition, the nondressing of such wounds is convenient, saves surgical dressings costs and the time of doctors and nurses, and eliminates the cumbersome dressings and irritation of adhesive tape, according to Drs. Louis T. Palumbo, Philip J. Monnig, and Dudley E. Wilkinson.

The method was first recommended before 1920, but has not been used extensively. Beginning in June, 1954, the doctors conducted a study of 211

consecutive cases with 222 clean surgical wounds of the abdomen and/or the chest. Of this group, 106 patients with 111 wounds were treated without surgical dressings and 105 patients with 111 wounds with dressings.

Those with dressings were cared for in the conventional manner, with the bandages being removed from nearly all six to eight days after surgery. In the other group, all but three had their dressings removed within 24 hours and the wound left uncovered. The remaining three had their dressings removed within 48 hours after surgery.

In only one case did the patient complain of the wound being irritated by the sheets or pajamas. The patients raised no objection to the program and "even welcomed" the opportunity to watch the healing of their wounds.

President's Message

ONE of the most profound and perplexing questions confronting physicians today is that of acceptance or rejection of Social Security. HR-7225—passed by the House, now in the Senate—would force dentists and lawyers into the system. Physicians would remain out momentarily, “stranded on their island of freedom in an engulfing sea of socialism”.

Our A.M.A. leaders, who adhere to the principles of the democratic process, have requested each state to poll its membership in the effort to determine their wishes. At a recent meeting of Council, this request was approved. You will soon be asked to express your views by means of a questionnaire to be mailed each member of the Society.

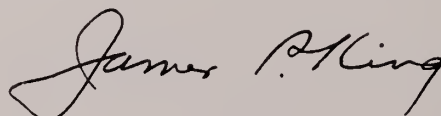
The Academy of General Practice has polled 1500 of its members, receiving a surprising return of 68% replies. Some of the findings are reported in the February issue of *GP*.

“Essentially, physicians are vociferously opposed to compulsory coverage, but 83% approved voluntary coverage for their colleagues and 55% of those answering the query would participate in such voluntary programs.

“The most frequently expressed objection took issue with existing income limitation provisions of the OASI program. With perhaps good reason, many doctors asked why they should be forced to participate is a retirement income plan that won't pay certain participants who retire at age 65. Currently, the retired participant whose income still exceeds \$1,200 per year is not eligible to receive benefits until he is 72 years of age.”

The doctor under 45 years indicated more vehement opposition to compulsory coverage than his older colleague. Again generalizing, *GP* noted that the Eastern doctor sees more merit in compulsory coverage than his Western compatriot.

When the results of this nationwide survey have been received and compiled, the A.M.A., should be in much better position to speak the wishes of the medical profession.



President

The Case Report

THE following editorial note introducing a new department, "The Interesting Case," appeared in a recent issue of the *Schweizerische Medizinische Wochenschrift*:

"Under this heading we should like our readers to submit observations which are of special diagnostic, therapeutic or anatomic-pathologic interest. We hope for an active participation and will be happy if these reports give rise to brisk discussion." (Translation ours.)

In many quarters the case report has fallen into undeserved disrepute. Its advantages are many. Multiple single case studies of unusual findings in time will constitute adequate samples for generalization and statistical treatment. Many individual observations not considered sufficiently grand for large-scale publication, but of real value, must lie buried for all time with their makers, the medical world a bit poorer for their loss.

Lest the practitioner in the field minimize the worth of accurate single case-observing, let him remember his colleagues (among others), the immortal Jenner, Budd in typhoid fever, Mackenzie in cardiac dysrhythmias, and the contemporary Pickles in infectious hepatitis and epidemic pleurodynia. Nor need he be in awe of the multiple-authored report dealing with a thousand patients who might have been observed with varying degrees of skill and diligence.

Not the least value of the case report is to the writer himself: he will be driven to the quiet of the library an evening or two, will enjoy the printed communication of thoughts with his colleagues the world over, and might be led to realize the insidious academic strangulation inherent in the disproportionate emphasis of the "practical" over the "contemplative" side of his professional life.

Last, there are the values accruing to him from the discipline of accurate and logical presentation of facts and thoughts in well turned phrases, and the feeling of well-being in seeing his handiwork well born.

The Editorial Board of your medical journal solicits such case reports, but *closely pruned* as to *irrelevant content, verbiage and bibliography*.

CHRISTIAN V. CIMMINO, M.D., F.F.R.

An Everyday Discourtesy

IT WOULD seem unnecessary to point out a special form of discourtesy shown by many physicians in placing telephone calls to their colleagues. Those who exhibit it, however, must be ignorant of the irritation they so blithely produce in others. I am speaking of the following common practice: The physician, Dr. More-Busy, asks his secretary to get Dr. Less-Busy. Dr. L-B's secretary calls Dr. L-B to the phone. Dr. More-Busy's secretary replies to Dr. L-B's voice, "Just a minute, Dr. M-B wishes to speak to you." (Often the minute is more than one before the caller greets the called in his cheerful polite manner.)

To illustrate how blindly tactless this discourtesy is—two recent examples: A physician placed a call to me by the method described above. I answered the caller's

secretary and waited an appreciable time. Finally he came to thank me for a service gratuitously done by me for him. Another call found me holding the phone while the caller's secretary went off to find the calling physician. This second call was for the caller to ask of me a personal favor in his behalf. Strangely, the performers of this frequently occurring discourtesy in these two instances are practicing psychiatrists (i.e., students of disharmony and harmony in interpersonal relationships.)

If his dialing finger is too sore for use, a physician could, at least, be ready at the extension phone when the telephoned colleague answers.

MEDICUS

Society Proceedings

Tri-County Medical Society.

Officers elected at a recent meeting of this Society are: President, Dr. M. M. Bray, Suffolk; vice-president, Dr. H. L. Gardner, Franklin; and treasurer, Dr. J. E. Rawls, Jr., Suffolk.

Tazewell County Medical Society.

On February 15th, this Society held a "Dr. Melvin Crockett" night in honor of Dr. Crockett who has practiced in the county for sixty-two years.

South Atlantic Association of Obstetricians and Gynecologists.

At the annual meeting held in Hollywood, Florida, in January, the following officers were elected: President, Dr. John C. Burwell, Jr., Greensboro, N. C.; vice-president, Dr. George A. Williams, Atlanta; president-elect, Dr. Manly E. Hutchinson, Columbia,

S. C.; secretary-treasurer, Dr. C. Hampton Mauzy, Winston-Salem; and assistant secretary-treasurer, Dr. W. Norman Thornton, Charlottesville.

The next meeting will be held at the Francis Marion Hotel, Charleston, S. C., February 6-9, 1957.

Richmond Eye, Ear, Nose and Throat Society.

Officers for this society are: President, Dr. Ed Bryce, and secretary-treasurer, Dr. C. N. Romaine. Their meetings are held the second Tuesday of January, first Tuesdays of March, May and October, at the Commonwealth Club.

Williamsburg-James City County Medical Society.

At the meeting of this Society held on March 14th, Dr. J. Warwick Thomas, Richmond, spoke on Allergy in Relation to General Practice.

Current Currents

THE PROFESSIONAL LIABILITY INSURANCE program of The Medical Society of Virginia is progressing nicely. The Insurance Committee wishes to make sure that the program is thoroughly understood by everyone and welcomes the opportunity to answer any and all questions. In this connection, it is hoped that the following questions and answers will bring about a better understanding of the plan.

1. What coverage exclusions are in the St. Paul's policy?

None, except the required exclusion relating to Workmen's Compensation and Employer's Liability which is written under a separate Statutory policy.

2. Is it mandatory that the physician place any or all of his insurance coverages with the "St. Paul" in order to obtain Professional Liability Insurance?

No—other coverages are not required. However, there are certain advantages, both from a coverage and premium standpoint, to carrying Comprehensive Personal Liability and Office Premises Liability coverages with the same company.

3. What position does the St. Paul-Mercury Indemnity Company occupy in the field of Professional Liability Insurance?

It is a well known fact that this company has been outstanding in this field for over twenty years and is considered one of the leading markets in this country for this type of protection. It writes approximately two-thirds of the 4600 accredited hospitals in this country and it is the approved insurance carrier for the American Nurses Association.

4. Does the St. Paul-Mercury Indemnity Company have similar Professional Liability Insurance programs in states other than Virginia?

Yes, the company has instituted programs in Oklahoma, District of Columbia, Georgia, Virginia, Minnesota, Indiana and North Carolina.

5. What assurance has the physician as to the future of the Insurance Program in Virginia?

The company has not withdrawn from any state in all the years it has been in the business of writing Professional Liability Insurance for physicians.

6. Is it mandatory that members of The Medical Society of Virginia be covered under the program?

No—the program is not mandatory in any sense of the word. The Committee wishes to point out, however, that the "greater the participation, the greater the benefits".

7. What are the provisions concerning settlement or defense of a claim?

All claims which are settled or defended will be on a basis mutually agreeable with the company and the Society. The company will depend upon insurance committees of component societies for advice and recommendations. The plan features the closest possible cooperation between company and component societies.

VIRGINIA PHYSICIANS, during 1955, contributed \$24,994.10 to medical education. A report, just released by the American Medical Education Foundation, shows that 197 physicians contributed directly to the Foundation, and 411 contributed through their alumni associations. The Foundation received a total of \$8,905.00 while \$16,089.10 was contributed through alumni groups.

The medical schools and directors of their alumni associations have cooperated in a wonderful way to give the Foundation a much more accurate breakdown of contributors by states than in previous years.

The Virginia AMEF Committee hopes that 1956 will be the best year yet. The goal is 100 per cent participation. The best way to help is to contribute now to the Foundation.

THE BRICKER AMENDMENT is much in the news these days. Known as S. J. Res. 1, the amendment, which has AMA backing, would (a) prohibit treaties made in conflict with the United States Constitution; (b) make a treaty effective as internal law if in conflict with state laws, and (c) require a roll call vote for ratification.

The amendment reads as follows:

"A provision of a treaty or other international agreement which conflicts with this Constitution or which is not made in pursuance thereof, shall not be the supreme law of the land nor be of any force or effect.

"A treaty or other international agreement shall become effective as internal law in the United States only through legislation valid in the absence of international agreement.

"On the question of advising and consenting to the ratification of a treaty, the vote shall be determined by yeas and nays, and the names of the persons voting for or against shall be entered on the Journal of the Senate.

"This article shall be inoperative unless it shall have been ratified as an amendment to the Constitution by the legislatures of three-fourths of the several states within seven years from the date of its submission."

THE SPECIAL CRASH INJURY STUDY involving 1956 model automobiles is now underway in Nansemond, James City, York and Northampton Counties. These counties are in addition to those reported last month.

Calendar of Coming Events

AERO MEDICAL ASSOCIATION—Drake Hotel, Chicago, Illinois—April 16, 17, 18.
8TH ANNUAL CONVENTION—INTERNATIONAL ACADEMY OF PROCTOLOGY—The Drake, Chicago, Illinois—April 23-26.
SOUTHEASTERN DIVISION REGIONAL MEETING INTERNATIONAL COLLEGE OF SURGEONS—Read House, Chattanooga, Tennessee—April 30-May 1.
AMERICAN GOITER ASSOCIATION—Drake Hotel, Chicago, Illinois—May 3-5.
VIRGINIA SOCIETY OF OPHTHALMOLOGY AND OTOLARYNGOLOGY—Convention Cruise to Havana and Nassau (sailing from Norfolk)—May 26-June 2.
22ND ANNUAL MEETING—AMERICAN COLLEGE OF CHEST PHYSICIANS—Hotel Sherman, Chicago, Illinois—June 6-10.
105TH AMERICAN MEDICAL ASSOCIATION ANNUAL MEETING—The Palmer House, Chicago, Illinois—June 11-15.

Virginia Chapter, American Academy of General Practice

The following officers were installed at the Sixth Annual Scientific Assembly of the Virginia Academy of General Practice at The Homestead, Hot Springs, March 3rd: Dr. Frank E. Tappan, Berryville, President; Dr. Malcolm H. Harris, West Point, President-Elect; Dr. Frank A. Farmer, Roanoke, Vice-President; Dr. R. G. McAllister, Richmond, Secretary; and Dr. William A. Young, Richmond, Treasurer.

New members elected to the Board of Directors were: Dr. R. Bruce Lawrence, Richmond, Dr. John L. Harris, Jr., Roanoke, Dr. Walter C. Caudill, Pearisburg, Dr. Thomas L. Lucas, Alexandria.

Nearly two hundred physicians attended the Academy's Assembly, benefiting from the program which included twenty outstanding speakers, with Dr. Paul Dudley White of Boston heading the list. Forty-six Technical Exhibits and fifteen Scientific Exhibits graphically presented the latest in medical information. Certificates of Award were presented for the first time at an Assembly to Scientific Exhibitors, "based on manner of presentation, appeal and ease of comprehension". First place was awarded to Dr. Thomas Mattingly, Walter Reed Hospital, Washington, D. C. for his exhibit, "Traumatic Injuries of the Heart and Great Vessels"; second place to Drs. Charles A. Hufnagel, and Pierre Rabil, Georgetown University, Washington, D. C., for their exhibit, "Surgical Treatment of Arterial Aneurysm

and Obliterative Diseases".

The Seventh Annual Scientific Assembly will convene May 23-26, 1957, at Hotel Roanoke, Roanoke.

Scientific Exhibits for Annual Meeting.

Applications may now be made for space at the annual meeting of The Medical Society of Virginia in Roanoke, October 14-17. These must be made on the forms furnished by the Society and may be obtained from Dr. Marcellus A. Johnson, III, 701 Carlton Terrace Building, Roanoke, Va.

Promotions at Medical College of Virginia.

Dr. William T. Sanger, president, has announced the following promotions from assistant to associate professorship: Dr. Christian V. Cimmino in clinical radiology; Dr. Charles W. Massey in radiology; and Dr. Joseph C. Parker in clinical obstetrics.

Dr. Edward P. Cawley,

University of Virginia, Charlottesville, will be a member of the faculty for the Refresher Courses at the Texas Medical Association Annual Session to be held in Galveston, April 21-25. His lecture will be on The Precancerous Dermatoses.

Dr. W. Geoffrey Wysor,

Halifax, has received a teaching appointment with the Department of Medicine of the University of North Carolina in Chapel Hill. He will continue his local practice, commuting to the University for his teaching assignments.

Northern Virginia Clinic Day.

The seventh annual Northern Virginia Clinic Day will be held on April 8th at the Wakefield High School in Arlington. The speakers are from the University of Maryland, School of Medicine, and the program is as follows:

Pelvic Endometriosis by Dr. Arthur L. Haskins, Professor and head of the Department of Obstetrics and Gynecology.

Portal Hypertension by Dr. Robert W. Buxton, Professor and head of the Department of Surgery.

Comprehensive Diagnosis and Management of Medical Problems—Panel by Drs. Ephraim T. Lisansky, Association Professor of Medicine and Associate in Psychiatry; Charles Van Buskirk, Professor and Chief of the Division of Neurology; and Benjamin Pope, Instructor in Medical Psychology.

Blood Ammonia—A Common Denominator in Coma and Other Allied Conditions—Dr. Samuel P. Bessman, Associate Professor of Pediatrics.

The Evaluation of the Personality as an Aid to the Management and Prognosis of an Organic Disease by Dr. Jacob Finesinger, Professor and Head of the Department of Psychiatry.

There will be a round-table seminar by Dr. Haskins on Gynecology and Obstetrics and another by Dr. Buxton for the surgeons.

The Assembly will open at 9:30 A.M., and the registration fee of \$5.00 will include the program, luncheon and a cocktail party. Dr. Milton R. Stein, Arlington, is chairman of the Assembly.

Cancer Control Month

Again this year April is designated as cancer control month. It will be proclaimed as such by President Eisenhower and Governor Stanley. During this period the American Cancer Society conducts its extensive educational crusade and appeal to the public for voluntary contribution to carry on its year-round program of cancer control activities.

Throughout the years of its existence the Society has emphasized the importance of individuals having regular physical checkups by their private physicians. During the 1956 Crusade and during the months to follow the society is giving wide publicity to the slogan "Fight Cancer With A Checkup And A Check." It will be noted that the educational message takes precedence over the check for funds.

The American Cancer Society recognizes the possibility that many individuals will react by requesting advice and asking for physical examinations by their private physicians. Efforts are being made to inform all physicians of this possibility.

The Virginia Division of the American Cancer Society is seeking the continued support and cooperation of The Medical Society of Virginia in its April Crusade.

Dr. Woodhouse Honored.

Dr. Robert W. Woodhouse, who has practiced medicine in Princess Anne County and Virginia Beach since 1913, has been named as First Citizen of 1955 at Virginia Beach. He was honored at a banquet and the largest crowd ever to attend a First Citizen's banquet turned out to see "Dr. Bob" become the sixth citizen so honored.

Dr. Raymond Brown,

Gloucester, recently addressed the Parent Education Study Group, his subject being "Keeping Teen Aged Healthy".

Dr. William S. Sloan,

Petersburg, was honored at a Fort Lee review in observance of National Defense Week. He is the area's senior active Reserve Officer, with the rank of Colonel, and stood with the commanding general, Major General Ira K. Evans, to receive the salutes of three regiments of marching troops. Dr. Sloan represented the thousands of Reservists all over the country.

Dr. W. T. Thompson, Jr.,

Richmond, has been re-elected as President of the Virginia Association for Mental Health.

Lectureship at University of Virginia.

Dr. John F. Anderson, New Brunswick, N. J., who received his medical degree from the University of Virginia in 1895, has made a "most generous gift to the University to establish a lectureship in medical science or public health".

Dr. Anderson is a native of Fredericksburg and has made many outstanding contributions to the science of medicine during his long career of service and leadership in public health, medical research and medical production. He is known as "one of the great microbe hunters of the world" and is credited with having tracked down typhus and spotted fever. His work on disinfectants and diphtheria and tetanus antitoxins ranks him as a pioneer in the standardization of these products. Dr. Anderson is a former vice-president and director of E. R. Squibb and Company and a former president of the American Drug Manufacturers Association.

Dr. John Morris, Jr.,

Recently addressed the Mother's Club of Lynchburg. His subject was "Poliomyelitis and the Salk Vaccine".

Dr. John C. Watson,

Alexandria, spoke on "The Heart and Heart Disease" at a recent meeting of the Sertoma Club.

Virginia League for Planned Parenthood.

The Annual Luncheon Meeting of the Virginia League for Planned Parenthood will be held at 12:30 p.m., April 20, at the Williamsburg Lodge, Williamsburg. Dr. Mason C. Andrews, Norfolk, is in charge of the program which will feature a panel discussion on the Medical and Public Health Aspects of Planned Parenthood, with Dr. Abraham Stone as Moderator. Dr. Stone is Vice-President both of the Planned Parenthood Federation of America and the International Planned Parenthood Federation, and Director of the Margaret Sanger Research Bureau of New York. Pioneer in the field of human fertility and conception control, Dr. Stone is co-author of the books, "A Marriage Manual" and "Planned Parenthood". He is also an outstanding

leader in the field of marriage counseling and is a former president of the American Association of Marriage Counselors.

For reservations for lunch call or write: Virginia League for Planned Parenthood, 102 East Franklin St., Richmond, Va.

Position Wanted.

EENT Specialist, about to retire from government employ, would like part-time work with a group or individual physicians in an attractive rural community. Experienced clinical ophthalmologist and otolaryngologist. Has also practiced audiology. Please give full details. Address EENT, care the Monthly, Box 5085, Richmond 20, Virginia. (*Adv.*)

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Obituaries

Dr. Clarence Porter Jones, Sr.,

Prominent Newport News physician, died February 27th, having been in ill health for several years. He was eighty years of age and a graduate of the Medical College of Virginia in 1895. Dr. Jones began his practice in Newport News in 1901, specializing in ear, nose and throat. He was active in community affairs and held membership in the Pioneer Club, Peninsula Lodge 278, AF & AM, and was a Shriner. Dr. Jones was a past president and very active member of the Seaboard Medical Association. He was a Life Member of The Medical Society of Virginia, having joined in 1896. Dr. Jones was for many years chairman of the Walter Reed Commission of the Society and it was through his efforts that the Society purchased the birthplace of Walter Reed "Belroi" in Gloucester County.

A son, Dr. Clarence Porter Jones, Jr., and a daughter survive him.

Dr. Stanley Hope Graves.

With the death of Dr. Stanley Hope Graves on February 2, 1956, the Norfolk County Medical Society lost one of its oldest and best loved members. Born in Orange, Virginia, May 20, 1872, he attended William and Mary College and was graduated from the Medical College of Virginia in 1894, with the degree of Doctor of Medicine. Further training was had at The Retreat for the Sick in Richmond, and old St. Vincent's in Norfolk. In 1896 he began practice with Dr. Southgate Leigh in Norfolk, and in 1903 was associated with Dr. Leigh in opening Sarah Leigh Hospital. Following service as Captain in the United States Army Medical Corps 1917-1918, he spent two years at Post Graduate Hospital, New York, in Urology training. In the ensuing years he kept abreast of the changing times in medicine. His continual study of medicine was reflected in his devotion to his profession and

his help to younger physicians in their practices, and he influenced several to pursue successful careers in Urology. He enjoyed a large following of devoted patients and friends, first with the Sarah Leigh Clinic during the twenties, and later in private practice. He retired in 1948, shortly after he received the "Fifty-year" Certificate of The Medical Society of Virginia. (He had been a member of the Society for fifty-nine years.)

He was a past president of The Norfolk County Medical Society, and an Honorary member. He was a fellow of the American College of Surgeons, a member of the American Urological Association and of other National, State and local medical Societies. He was at one time a member of the State Board of Health, the President of the Quarantine Commission for this district, and he represented the Norfolk and Western and Pennsylvania Railroad, and the Virginia Electric and Power Company in his medical practice. He is survived by his wife, Mrs. Etta Culpeper Graves.

BE IT RESOLVED that in the minutes of the Norfolk County Medical Society this record be made of our sorrow in the loss of Dr. Graves and that a copy of these Resolutions be forwarded to the family, The Medical Society of Virginia, and the American Medical Association.

DR. CHARLES J. DEVINE, SR.
DR. HARRY HARRISON
DR. WALTER P. ADAMS, *Chairman*

Dr. James Martin Habel, Sr.,

Well-known physician of Amelia County, died at his home in Jetersville on March 6th. He was a native of Bedford and seventy-four years of age. Dr. Habel graduated from the Medical College of Virginia in 1910 and had practiced in Amelia County since that time. He was a member of the Ruritan Club, the Truxillo Hunt Club and the Masons. Dr. Habel had been a member of The Medical Society of Virginia since 1913.

His wife, three sons and three daughters survive him. One son is Dr. Habel, Jr., of Suffolk.

Dr. Charles Fox Graham,

Prominent Wytheville physician, was killed when his automobile was struck by a train on February 22nd. He was sixty-four years of age and a graduate of the Medical College of Virginia in 1916. Dr. Graham was one of the oldest physicians in Wythe County and his father before him had been a physician there. He had been a member of The Medical Society of Virginia since 1917.

Surviving are his wife and a son.

Dr. R. Sumpter Griffith.

On December 14, 1955, a long, inspiring and dedicated career came to a close. Active and interested in his fellowman and the many organizations through which he chose to serve until the onset of his last illness, two weeks before he went to his reward, R. Sumpter Griffith served his fellowman as physician, civil servant, fraternal order enthusiast and humanitarian for more than 65 years.

In 1947, he formerly retired but continued to administer to many who insisted he was still their family physician.

At the time of his death, he was an officer in his local Masonic Order and also Grand Senior Steward of the Grand Lodge of Virginia.

Born in Friendship, Maryland, in 1861, he moved to Waynesboro in 1891. His eventful career included 25 years in civic duties as Councilman and Mayor of Basic City and Councilman in Waynesboro after the consolidation.

For more than 50 years he served as surgeon for the C&O and N&W Railroads.

In 1954, he was awarded a plaque for meritorious services by the Volunteer Fireman's Association, having served them in Basic City and Waynesboro for a total of 62 years.

Although his life was full of activity from his profession and his various associations, he served his church in many capacities.

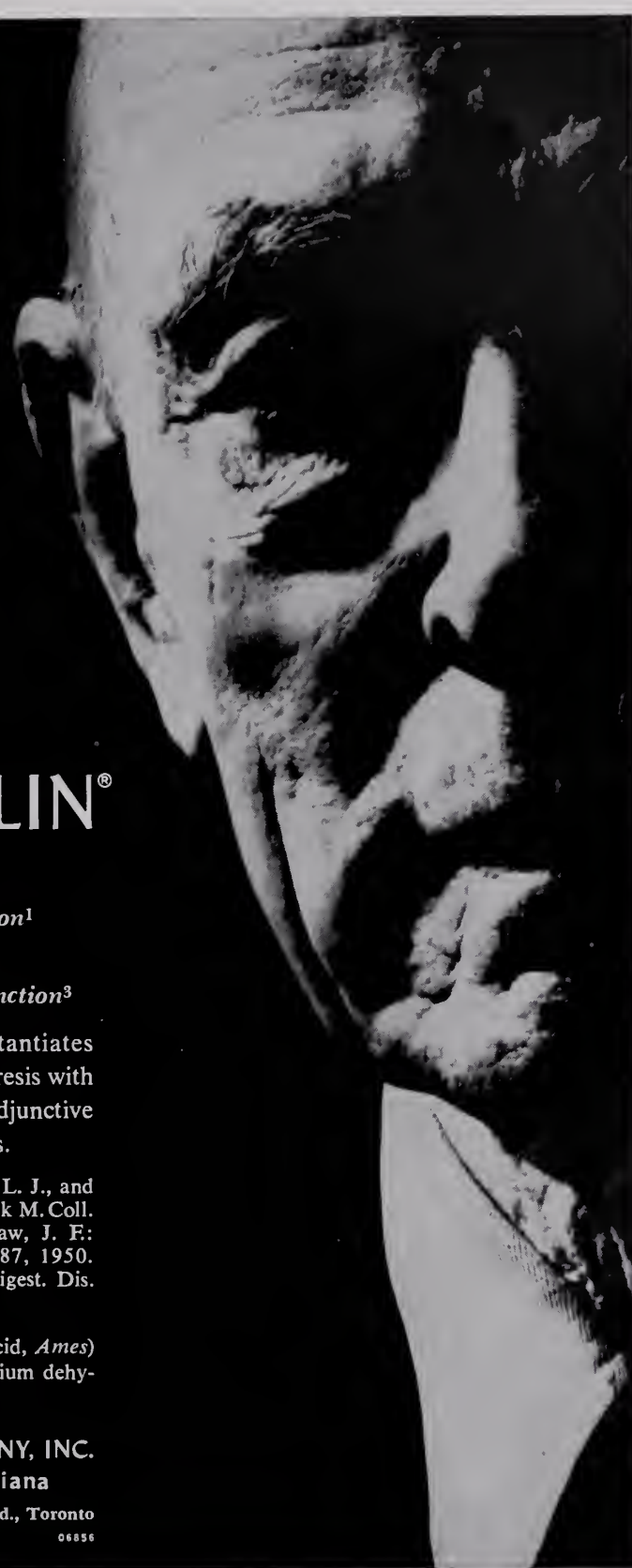
He was an active and ardent supporter of his college, the University of Maryland, returning annually for the reunion. At the time of his death he was the oldest alumnus.

A member of the 50 Year Club of The Medical Society of Virginia, he continued to be active in his local Society and the Medical Society of the Valley of Virginia until recent years.

Dr. Griffith will long be remembered as a determined character who did much for his fellowman and asked but little for himself.

We, the undersigned, offer the attached Memoriam on Dr. R. Sumpter Griffith and move that it be spread upon the minutes of the Augusta County Medical Society, the Medical Society, of the Valley of Virginia and that of the staff of the Waynesboro Community Hospital. That copies be sent to Virginia Medical Monthly and to each member of the family.

S. G. SAUNDERS, M.D.
D. EDWARD WATKINS, M.D.
CHARLES SAVAGE, M.D.



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(1) Schwimmer, D.; Boyd, L. J., and
Rubin, S. H.: Bull. New York M. Coll.
16:102, 1953. (2) Crenshaw, J. E.:
Am. J. Digest. Dis. 17:387, 1950.
(3) King, J. C.: Am. J. Digest. Dis.
22:102, 1955.

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VIRGINIA

MEDICAL MONTHLY



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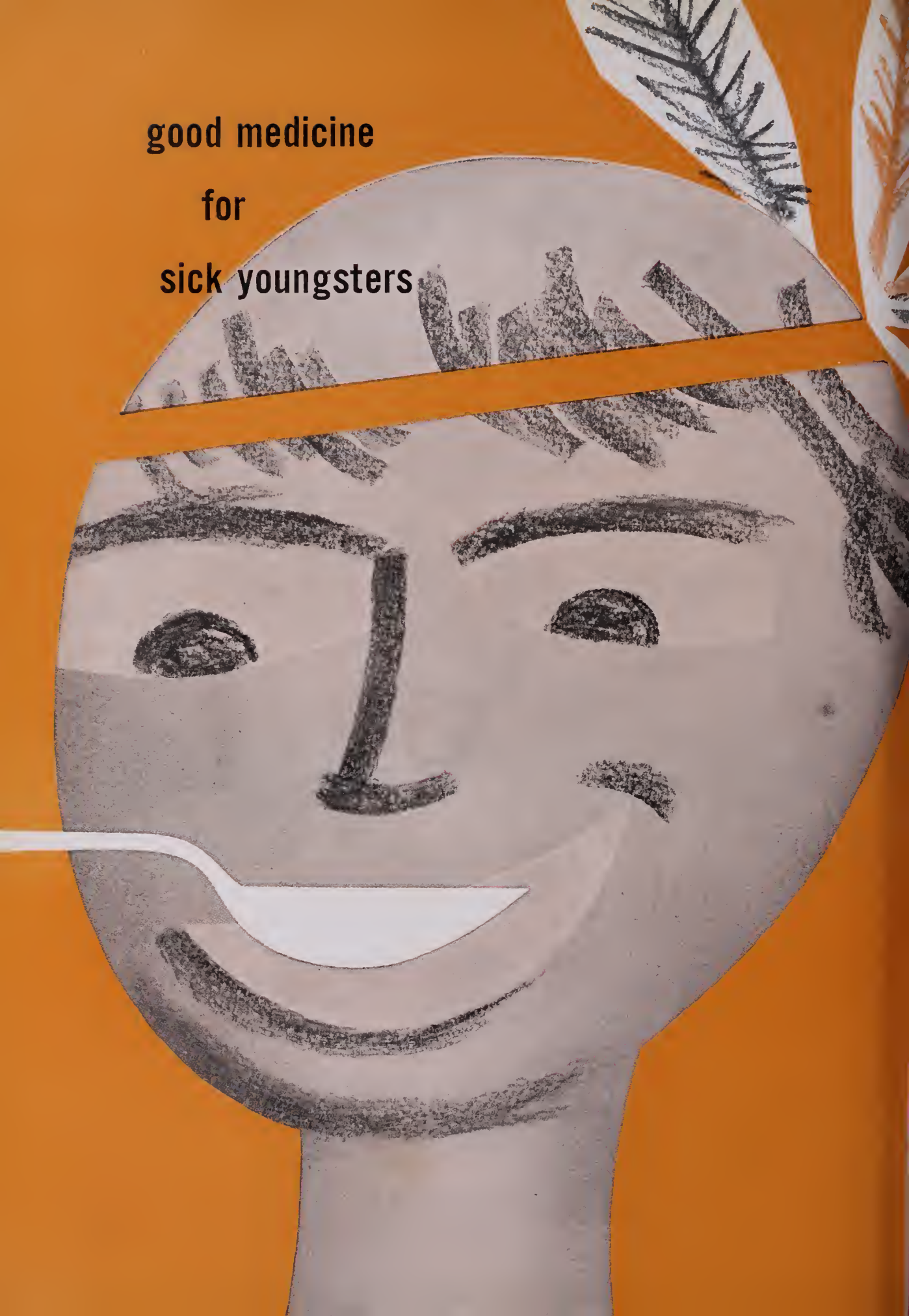
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(Founded by Landon B. Edwards, M. D., April 1874)

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Annual Subscription—\$2.00

Single Copies—25¢

TABLE OF CONTENTS

GUEST EDITORIAL

Highway Accidents—Charles J. Frankel, M.D.----- 183

SCIENTIFIC ARTICLES

The Radioactive Gold (Au198) Program—James P. Baker, M.D., George Cooper, Jr., M.D., E. Meredith Alrich, M.D., George R. Minor, M.D., W. Norman Thornton, Jr., M.D.----- 185

Wire Brush Planing for Post-Acne Scarring—Thomas W. Murrell, Jr., M.D.----- 188

Non-Specific Myocarditis—W. T. Thompson, Jr., M.D., Gordon R. Hennigar, M.D.----- 191

Dr. Craven and the Captivity of Jefferson Davis at Fort Monroe—Chester D. Bradley, M.D.----- 197

Obstetrical and Gynecological Symposium:

Ectopic Pregnancy—Brock D. Jones, Jr., M.D., Charles F. Whicker, M.D.----- 200

Menstrual Irregularity—William Bickers, M.D.----- 202

Abnormal Bleeding at the Menopause—Joseph C. Parker, M.D.----- 206

Hypofibrinogenemia in Pregnancy—Edwin Rucker, M.D. 208

Abnormal Uterine Bleeding in the First and Second Trimesters of Pregnancy—Arthur L. Wilson, M.D.----- 211

Manual Exploration of the Uterus Following Delivery—Rufus P. Ellett, Jr., M.D.----- 214

PUBLIC HEALTH

“Meningitis, Other” ----- 216

MENTAL HEALTH

Who Are the Patients in Our Mental Hospitals?----- 217

THE MEDICAL SOCIETY OF VIRGINIA

Congress on Industrial Health----- 219

WOMAN'S AUXILIARY

----- 223

PRESIDENT'S MESSAGE

----- 224

EDITORIALS

Home Care for the Tuberculosis Patient----- 225

Dr. Rucker's Memorial Book----- 226

SOCIETY PROCEEDINGS

----- 227

NEWS

----- 228

OBITUARIES

----- 231


SHORT SUBJECTS—Delay in Seeking Surgical Care, 184; Mental Health Program, 187; Elephant Has Hardening of the Arteries, 196; Portable Telephone Aid, 199; Mental Health, 205; Controlled by ACTH, 207; Dermatitis, 210; Ford Foundation Grants, 215; Lawyer Urges M.D.s to Keep Detailed Records, 223

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INDEX TO ADVERTISERS—Page 54



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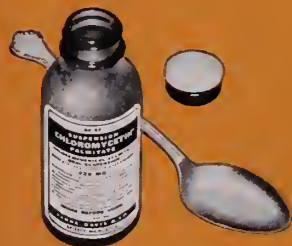
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Guest Editorial

IN 1955, over 38,000 Americans were killed in highway crashes, and more than one and one-quarter million sustained serious injuries.

Any disease which took such a toll would demand the attention of every physician in this country. Can we, with justification, disassociate ourselves from our obvious duties to prevent such disabling injuries and to preserve life to the best of our abilities?

The whole history of medical progress is interwoven with the successful prophylactic accomplishments of men and women like Pasteur, Lister, Curie, Koch, and, in our own generation, Salk. We, too must meet a challenge more deadly than most bacteria borne threats carry against our greatest potential, our youth! The toll from highway crashes can and must be reduced.

The physician can well be proud of the results he has obtained in the definitive care of the injured. He had been responsible for the introduction of prompt efficient splinting, more intelligent first-aid, adequate treatment of shock, debridement of open wounds, the use of antibiotics to control infection and for a better understanding of fluid balance.

The Committee on Trauma of The American College of Surgeons under the chairmanship of Dr. Arnold Griswold of Louisville, Kentucky, sponsors along with the American Red Cross, the education of fellow physicians and lay-workers in the care of the injured.

Dr. Fletcher Woodward, of Charlottesville, Virginia, Chairman of the A.M.A. Committee on medical aspects of automobile injuries and deaths, has been a pioneer in stimulating interest and research in the problem of automobile crashes. It has been through his efforts that automobile companies have acknowledged the need for the use of safety belts, crash padding, collapsible steering wheels, safety locks on doors, and many other devices which are already available, though, unfortunately not mandatory.

Every Virginia physician acting through his County Medical Society should immediately send a resolution to his governmental representatives—both Federal and State—demanding legislation to insure the building of safer automobiles by way of federal control, such, for example, as is now exercised over the airplane industry by the Civil Aeronautical Authority.

Request that the chemical tests for drunken driving be made mandatory and that such evidence be admitted for use in our courts.

Insist on mandatory jail sentences for drunken drivers and demand more rigid and uniform enforcement of laws already enacted.

It is not enough to be vocal—we must create unceasing pressure on our legislators. The medical profession has never before been accused of complacency in the face of national disaster. We must again and again demonstrate our ideals and our interest in the lives of our fellow countryman!

I commend to you for your consideration a resolution unanimously passed recently by the Albemarle County Medical Society of Virginia.

CHARLES JAMES FRANKEL, M.D.

Editor's Note: The resolution by the Albemarle County Medical Society was published on page 134 of the March issue of the Monthly.

Delay in Seeking Surgical Care

A new explanation of the familiar experience of putting off a visit to the doctor even when danger signals are present has been given by a group of Cincinnati researchers. One of their major findings in a survey of Cincinnati surgical patients was that people do not delay just because they aren't aware of what the danger signs mean. In fact, among 200 patients, the person who was totally ignorant of the importance of danger signals was "extremely rare," indicating that the medical profession and medical publicists have done a good job of educating the public. (April 7th Journal of the American Medical Association.)

Of the 200 patients surveyed, 23 had no opportunity to delay seeking surgical treatment, and no information was obtained on 11. Of the 166 patients who had an opportunity to delay, 71 did so. Many of these delayed, not because of ignorance of the danger signs' meaning, but because of various personality and emotional factors, the survey showed.

In addition, it disproved several other reasons frequently given as causes of delay. Delaying patients were of all ages—not "young and foolish" or "old and fatalistic." There was no difference in intelligence between those who delayed and those who did not. Sex was not a factor; men and women were almost equally represented in both delay and nondelay groups.

The survey neither confirmed nor denied the idea that cost influences delay. All of the patients were in a hospital which provides care even for those

who cannot pay, but some might have delayed because they were ashamed of having to accept free treatment.

Their study also disproved the idea that delay is a symptom of one or another specific type of mental illness. There was no significant difference in the psychiatric diagnoses of delayers and nondelayers.

The researchers did find, however, that delay resulted from various conscious and unconscious factors operating before, during, and after recognition of a sign or symptom. The kind of illness suffered could play a part in the delay, but was not by itself a sufficient reason.

While the medical profession and publicists have been successful in reaching most persons with straight information about disease, there is still much to be done to overcome these emotional factors causing delay, the authors said, suggesting that there be some changes in the emphasis in public education and that more attention be paid to the emotional factors during medical and surgical treatment.

Making the report were James L. Titchener, M.D., Israel Zwerling, M.D., Ph.D., Louis Gottschalk, M.D., Maurice Levine, M.D., William Culbertson, M.D., Senta Cohen, Ph.D., and Hyman Silver, Ph.D., from the University of Cincinnati College of Medicine. Dr Zwerling is now at Albert Einstein College of Medicine, New York. The study was supported by a grant from the National Institute of Health, Bethesda, Md.

The Radioactive Gold (Au^{198}) Program

A Preliminary Report

JAMES P. BAKER, M.D.
GEORGE COOPER, Jr., M.D.
E. MEREDITH ALRICH, M.D.
GEORGE R. MINOR, M.D.
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THE intracavitary use of radioactive colloidal gold in the treatment of neoplasms was instituted at the University of Virginia Hospital under the direction of the Radioactive Isotopes Committee in March, 1954. This is a preliminary report of the clinical results obtained in sixteen patients.

PHARMACOLOGY AND PHYSICAL CHEMISTRY¹⁻⁶

The isotope radiogold (Au^{198}) is prepared from stable gold (Au^{197}) by neutron bombardment in a nuclear reactor. The size of the particles ranges from 0.003 to 0.007 micra. The concentrated colloidal solution (Aurocloid^I) may be diluted with water, saline, procaine hydrochloride and many other solutions. Radiogold solutions are self-sterilizing after 24 hours, are relatively stable to heat, but should not be autoclaved under pressure.

Radiogold has a half-life of 2.7 days, and 95 per cent of its energy is delivered in 11 days. Its radiation consists essentially of a 0.97 mev beta and a 0.411 mev gamma ray. Between 90 and 94 per cent of its radiation is beta ray and from six to ten per cent gamma ray.

Due to wide variations in distance, volume, and distribution, the exact dosage of radiation delivered via an intracavitary instillation of radiogold can not be precisely calculated. Several authors have estimated the dosage from intraperitoneal administration of 100 mc of radiogold to be about 3000 r.^{4,7}

Radiogold instilled into a body cavity quickly flocculates on the serous surfaces by absorption and phagocytosis^{6,7}. A small percentage may be dispersed via the lymphatics; a smaller amount ultimately enters the blood stream and is concentrated in the reticulo-endothelial system. A very small amount may be transported from one serous cavity to another; but the greater part remains on the serous

surfaces,⁶ from 50 to 75 per cent being absorbed within 24 hours⁸.

INDICATIONS FOR INTRACAVITARY USE

Palliative: The accumulation of fluid in the pleural, peritoneal and pericardial cavities as a complication of metastatic malignancy is not unusual and occurs especially with metastases from tumors of the breast and ovary. The fluid accumulates so rapidly that repeated thoracenteses or paracenteses or pericardial aspirations become necessary for the relief of pressure symptoms. The body proteins are ultimately depleted, and the rapid alteration of pressure symptoms and decompression become a source of anxiety and discomfort for the patient. The exact mechanism by which metastatic disease causes effusion in serous cavities has not been adequately explained. However, it has been shown that radiogold introduced into the cavity destroys some of the malignant cells and inhibits the recurrence of fluids^{6,7}. Because 90 per cent of the energy emitted by radiogold is in the form of beta radiation, the maximum effect is in the one or two millimeters of tissue closest to the serosal surface. Only the most superficial malignant cells are affected and tumor masses are not materially influenced. The reduction of the rate of effusion is probably due more to superficial lymphatic sclerosis than to tumor inhibition⁶. Therefore, the selection of radiogold as a means of delivering radiation rather than roentgen therapy should be reserved for the patient with abdominal, pleural or pericardial effusion secondary to multiple, small serosal metastatic implants.

Prophylactic: In an occasional patient with no evidence of extension or metastases at the time of operation, an ovarian cystic malignancy is ruptured. Spillage of malignant cells into the peritoneal cavity must be assumed. In this situation, the choice of

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¹Supplied by: Abbott Laboratories, Oak Ridge, Tennessee.

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radiogold seems preferable to roentgen therapy for the indicated prophylactic radiation.

METHOD OF ADMINISTRATION

In our Isotope Laboratory the radiation physicist and his technician use remote control tools (Figure 1) to dilute the desired dose of Aurocloid with normal



Fig. 1. —Method and equipment used to withdraw and dilute the radiogold.

saline and to place the solution into the bottle which fits into the brass-lead container shown in the upper left-hand corner of Figure 2. From the glass “Y”

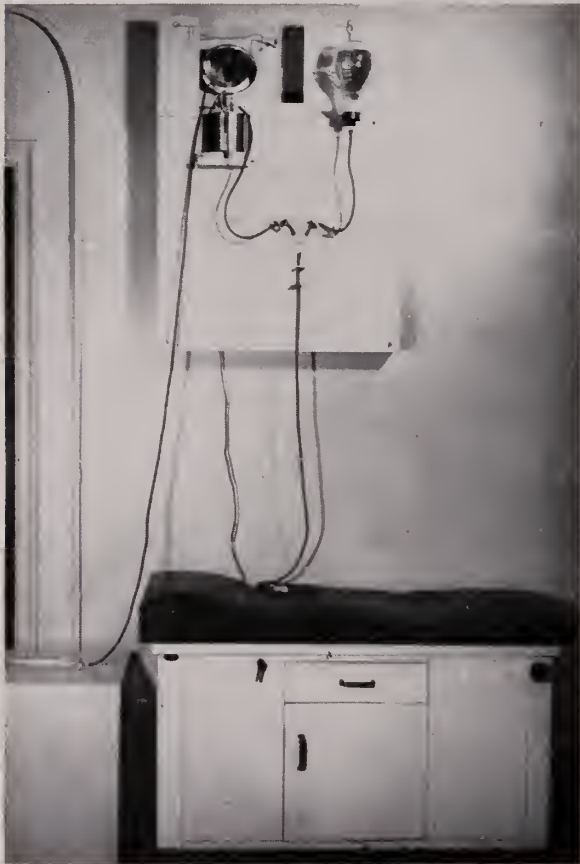


Fig. 2—Apparatus used to administer radiogold.

connecting the saline reservoir with the radiogold container a single tube leads to the patient. A thoracentesis or paracentesis is done and after the desired amount of effusion has been withdrawn, the rubber tubing leading to the patient is fitted, in the case of an intra-abdominal administration, to polyethylene tubing which has been passed through a trocar into the abdominal cavity; or, in the case of an intrapleural administration, to a three-way stop-cock which has been placed on a needle in the pleural space.

The saline reservoir in the upper right-hand corner, Figure 2, is used to rinse the residual radiogold from the container and tubing into the patient. The needle of polyethylene catheter is then withdrawn, and the patient is removed immediately to a private room, care being taken to determine that the room is large enough and the bed so placed that no radiation reaches the patients in adjoining rooms. The patient is either placed on an oscillating bed or instructed to turn every fifteen minutes for the first few hours in order to insure an even distribution of the gold within the body cavity.

By daily scanning, the time that nurses, other personnel, and visitors may remain in the room is determined. In five to ten days, depending upon the dosage given, the radioactivity has fallen off enough for the patient to be returned to ordinary nursing care or discharged.

COMMENTS

Sixteen patients have received radiogold since the institution of its use at the University of Virginia Hospital. A total of 19 doses have been given. Fourteen patients have received one dose, one patient received two doses, and one patient received three doses. Intraperitoneal instillation of radiogold was performed thirteen times and intrathoracic instillation six times. No significant side effects have occurred.

The primary malignancies were ovarian (12), colonic (2), gastric (1), and mammary (1). In one patient the site of the primary malignancy was never fully established. Two patients had Hodgkin's disease.

The results were as follows:

Died in less than 1 month-----	4
Indeterminate because gold and roentgen therapy were given almost simultaneously -----	1
Lost to follow-up-----	1
Prophylactic dosage -----	2

This leaves 8 patients in whom the effect of radio-

gold therapy upon effusion could be evaluated:

Failure (effusion not influenced)-----	1
Fair result (continued taps necessary but at less frequent intervals)-----	1
Good result (either no more taps needed or long intervals before fluid reaccumulation) -----	6

The most outstanding success was in one of the patients who had Hodgkin's disease. Frequent thoracenteses for pleural effusion had become necessary. Following therapy with radiogold the patient lived twenty months without requiring another thoracentesis.

CONCLUSIONS

1. Intracavitary radiogold therapy is a useful addition to the procedures available for the treatment of malignancy.
2. Its usefulness as a palliative procedure is limited to patients suffering from peritoneal, pleural, or pericardial effusion secondary to multiple small serosal metastatic implants.
3. Radiogold has been used as a prophylactic treatment in an attempt to sterilize the peritoneal cavity when spillage of malignant cells into an otherwise normal peritoneal cavity during surgical procedures has occurred.
4. Sixteen patients have received radiogold with good results in six cases, fair results in one case, and failure in one case. Four patients died in less than one month, one case was lost to follow-up, and one case could not at this time be properly evaluated because of contaminant roentgen ray therapy.

5. Two prophylactic doses of radiogold have been administered and its effectiveness when used for this purpose cannot be statistically evaluated for some years to come.

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Mental Health Problem

1. More than ten million Americans—1 in every 16—are now suffering from some form of mental disorder.
2. There are 750,000 men, women and children under the care of mental hospitals today—*more than there are in all other hospitals combined.*
3. Each year 250,000 new patients are admitted to mental hospitals.
4. The average state mental hospital has only about 5 doctors for every 10 it needs—3 registered for every 10 it needs—3 social workers for every 10 it needs—2 clinical psychologists for every 10 it needs.
5. There are about 1,200 mental health clinics in the country. Only half of these operate full time. Many part-time clinics are open only a few hours a month. There should be at least 3,300 full-time clinics.

Wire Brush Planing for Post-Acne Scarring

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THE purpose of this paper is to describe the method of dermalabrasion developed by Abner Kurtin in 1952 and to discuss the results which we have obtained with this procedure.

Scarring due to disease is one of the oldest problems for which physicians have been consulted. Archeologists have discovered prescriptions 2000 years old which were tried with probably meagre success. With the relative disappearance of small pox in the civilized world, acne vulgaris is probably the condition which produces more facial scarring than any other common disease. Modern treatment for acne, particularly if begun early, can prevent a great deal of scarring, but by no means all of it. It is undoubtedly true that patients who have severe acne and are told to out grow it have the worse scars. The scarring may result from severe cystic acne from the start, or by the appearance of occasional large pustular lesions over a period of time.

The effect of facial scarring early in life in the average patient cannot be underestimated. Aside from the psychological effect and physical rejection by the opposite sex, these patients suffer in other ways. Young men and women are often turned down for jobs because their facial appearance is not pleasing and acceptable. And, furthermore, these people are painfully aware that the general public tends to identify them as "So and so with the bad complexion", or "With all the pock marks". People, in general, will not let the scarred forget their looks even if they are able. It is an interesting fact that many of the patients who seek help for scarring are happily married but will do anything to obtain help with a condition which to them is a great burden to carry. The need for procedures to improve the appearance of these patients is a very real one.

The use of power driven tools for the treatment of various conditions of the skin is not new. Kromeyer,¹ beginning in 1905, published a number of articles describing the use of power driven cylindrical knives and dental burrs which he used to remove benign small lesions of skin, tattoos, and scars. He reported in 1929 his experience with what he called a "Leveling operation" for small pox scars by which

he leveled the skin around the pocks to level off the floor of the lesion. He apparently did this procedure under novocaine.

In 1947 Iverson² first used carpenter's sandpaper wrapped around a three inch roll of gauze bandage for the removal of traumatic tattoos of the face. The operation, under general anesthesia, was combined with the coagulating action of tannic acid and silver nitrate. McEvitt³ was the first to apply the sandpaper technique to the correction of acne pits. Under general anesthesia he abraded the entire face by hand, and also used assorted motor driven discs for small inaccessible facial contours. An average of three sandings per patient were required. The use of sandpaper for abrasion brought to light significant facts regarding the ability of skin to heal without scarring. Iverson noted that he would even go to the point where subcutaneous tissue gradually made its appearance on pin point elevations of fat through the abraded corium. Rosenberg⁴ has shown that one can abrade to the level of the sweat glands without scarring. This histogenesis of healing as described by Gillman, Penn⁵ and others who studied splint skin grafts is identical with the healing from abrasion. They showed that new epithelium is generated from neighboring undamaged skin and from hair follicles and sebaceous gland ducts. Abrasion always is best done in areas where pilosebaceous units are concentrated.

Histologically and clinically three complications may develop. The first is erythema which is of short duration. Hyperpigmentation may occur but disappears in six to eight weeks. Occasionally milia occurs which can be easily removed and do not reoccur.

The procedure devised by Kurtin is an operation without general anesthesia and is an office procedure. Candidates for that procedure are informed thoroughly what to expect. Patients with "Ice Pick" ("or narrow punched out") scars, as well as those with undulating wavy type scars cannot expect as much improvement as the average patient. The patients are impressed with the fact that all scars cannot be removed but that they can expect about 60 to 80% improvement in their appearance. Most all patients

Presented at annual meeting of The Medical Society of Virginia, Richmond, October 16-19, 1955.

when completed consider these percentages as understatements.

The Kurtin procedure as we use it is as follows:

Pre-operatively the face is thoroughly cleaned with soap and water. Plastic ice packs containing 5% propylene glycol in water are placed over the areas to be planed and allowed to stay for about twenty minutes. This produces initial chilling of the skin and reduces the momentary discomfort encountered when spraying with ethyl chloride. In addition this period is well spent because the patient becomes more relaxed prior to operating.

The anesthesia used is coarse spray ethyl chloride which is sprayed on the area to be planed. The freezing action of this material is accelerated by an air blower which is directed toward the field. The blower also dispenses the fumes of ethyl chloride which if inhaled a great deal are toxic. For this

are 3/4 inch in diameter and vary in thicknesses. The brush is attached to a flexible hand piece and shaft which is turned by an electric motor of 1/12 H. P. at 15,000 revolutions per minute. This is approximately twice as fast as the average machine used by dentists.

The size of areas to be planed at each freezing vary with the operator. We have elected to do about two square inches at a time. The area is painted with gentian violet 2%, frozen and planed. The purpose of the dye is mainly to give distinct outline to the area selected. When frozen skin begins to thaw the whitish appearance disappears and it is difficult to tell anesthetized from unanesthetized skin. Furthermore, with dye applied, one does not tend to leave any small areas of unplanned skin which is always not easy to tell in a field which is gradually becoming bloody.



Fig. 1.—Average Case Before Planing.

reason cotton is placed in the nostril adjacent to the area to be planed and pressure applied by the assistant to the nostril when the material is used close to it. We know of no cases in which toxicity has occurred when these precautions are taken. Work is now being done with fluorinated hydrocarbons such as freon as an anesthetic, but we have not felt it necessary to change the anesthetic we use.

The wire brushes are of stainless steel wire 0.003 inches in diameter and each strand is slightly curved in the direction of rotation. The brushes themselves,



Fig. 2.—One Month Following One Planing.

The brush is pulled across the frozen skin at right angles to its rotation. When sprayed with ethyl chloride for about 15 seconds the skin is quite hard and one gets a definite sense of resistance against the brush. The operator and the assistant wear clear plastic masks since there is considerable debris thrown by the brush from the field.

Following the planing of each area gauze is applied to absorb bleeding which does not last more than three to four minutes. Some serous oozing occurs slightly for about twenty-four hours.

All areas of the face elected for planing are done at one operation.

The usual site of operation is the cheeks and the chin if needed. There is no evidence of demarkation when healing occurs if the chin is omitted.

Following the operation telfa plastic gauze dressings are applied and patients are told to remove these as soon as they arrive at home. No dressings of any kind are used except these. In about twenty-four hours a heavy crust forms which separates at the time of re-epithelialization in from eight to ten days. During this time the patient is asked to remain indoors.

There are no pre-operative drugs given. Post-operatively we prescribe terramycin 100 mg. q.i.d. for four days but believe this to be a precaution which is probably unnecessary. The patient is given nembutal gr. 1-1/2 for two nights mainly because they fear that they will do some harm to the planed area in their sleep.

There is practically no discomfort to this procedure except for some soreness during the first twenty-four hours. We have had no refusals for replanning because of pain or any other discomfort.

When the crust separates the skin is slightly red for about four to six weeks. This redness is especially evident on exposure to sun light. Because of this fact, Skolex cream is prescribed during this period when exposed to sun, but only in the summer months. Replaning is done at three months intervals.

In the past eighteen months we have operated upon thirty patients for post acne scarring. We have not planed a patient more than twice. Over fifty per cent were satisfied with their appearance after one planing. It is the common experience of all operators doing this procedure that the patient is often more pleased after one planing than is the physician and, further, there is often at this time a great psychological change for the good. If the

patient is pleased with one procedure, we have not urged them to proceed with further planing.

It is our feeling and that of many others that the best results are obtained when planing is done lightly and repeated two or three times if necessary. We have had only one patient who was dissatisfied with the procedure. He was planed lightly once by us and six weeks later elected to have a small area sanded under novocaine for comparison by another physician. The area sanded was done quite deeply and definitely had a more smooth appearance in that area. He logically concluded that sanding was a better procedure. One can brush deeply and accurately with the planing instrument, but planing mildly does produce in the long run better results than if we elected to go as deep at one procedure as possible.

In summary, the Kurtin procedure with some modifications has been described. The results of this procedure in our hands have been gratifying, particularly to the patient. We believe this procedure to be a great addition to the means of improving the appearance of the acne scarred patient.

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HAVE YOU MAILED YOUR CONTRIBUTION TO AMEF?

IT'S NOT TOO LATE!

Non-Specific Myocarditis

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THE term "myocarditis" has been badly abused in the past, chiefly by clinicians when referring to degenerative and fibrotic changes on the basis of vascular disease. Following repeated clinical-pathological correlations indicating the frequent inaccuracy as it was used, a reaction developed culminating in the statement by Sir Thomas Lewis¹ that "myocarditis" is scarcely justified clinically except in relation to rheumatism.

INCIDENCE

In recent years, however, medical literature has abounded with observations that clearly indicate that the heart is involved by a true inflammatory process far more frequently than has been realized. Saphir has made an exhaustive review of the subject², and a number of authors have described clinical and/or autopsy findings on non-specific myocardial involvement in a wide variety of diseases, a partial but representative list of which is noted in the bibliography³⁻⁴⁵. Gore and Saphir demonstrated myocarditis in 1,402 cases of more than 40,000 autopsies received at the Armed Forces Institute of Pathology from 1942 to 1946. Only 20% of these were due to rheumatic fever or diphtheria, with the balance attributed to about fifty different causes³. Marcuse found thirty-six cases of non-specific myocarditis in 3,800 autopsies, the majority of which showed primary pulmonary lesions⁴.

In contrast to cases of non-specific myocarditis in which there is recognizable extra cardiac disease, there is a highly interesting group in which non-specific changes occur in the absence of any major pathologic condition involving either the endocardium and pericardium or the entire body, and in the absence of all known agents which might cause myocardial involvement. This is variously referred to as Fiedler's myocarditis after Alfred Fiedler who first described a case of interstitial myocarditis in 1900; idiopathic myocarditis, indicating its unknown origin and etiology; and isolated myocarditis, em-

phasising that the pathologic lesions are located solely in the heart muscle.

Scott and Saphir reported the first cases of Fiedler's myocarditis in American literature⁴⁶, and reviewed the world literature to that time. Since then there have been a great many reviews and case reports, a partial list of which can be found in the bibliography⁴⁶⁻⁷³. An accurate estimation of the number of such cases reported is impossible, however, due to the problem of semantics which is involved, for the meaning and interpretation of the words "idiopathic" and "isolated" are all important in deciding which cases fall in this category.

Clinically the incidence of non-specific myocarditis is difficult to evaluate because of the unsatisfactory and varied criteria used by different authors to establish the diagnosis, because of the low mortality of a number of diseases in which it has been described, and because of the all too infrequent clinical-pathological correlations. Review of the chart of a patient who comes to autopsy with findings of extensive myocardial changes often reveals that myocardial disease was not suspected, and that there is not enough data to make an adequate correlation. Finally, the myocardium is unique among all body structures in that it is the last bastion unassailable as yet by the surgeon's knife for biopsy or removal during life. Thus no tissue study can be promptly done to give a firm pathological foundation to clinical observations.

Pathologically, the incidence of non-specific myocarditis is difficult to evaluate because central pathology laboratories with the opportunity to collect statistics of large series of cases are few, because a primary disease may so overshadow the picture that the question of myocarditis receives scant attention, and because the myocardial lesions are frequently patchy and are overlooked if only a few blocks of myocardium are taken in random sampling. Furthermore, there is again the problem of unsatisfactory and varied criteria for making the diagnosis. Pathological changes consisting of edema, cellular infiltration, heart muscle degeneration, fibrosis and hypertrophy are the basic tissue reactions. A variety of syndromes such as idiopathic myocardial hyper-

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Presented at the annual meeting of The Medical Society of Virginia, Richmond, October 16-19, 1956.

trophy⁷⁷, idiopathic cardiac fibrosis⁷⁸, and "cardio-vascular collagenosis with parietal endocardial thrombosis"⁷⁹ have the same basic pathology as non-specific myocarditis, varying only in the degree and relative predominance of these reactions. Thus these diseases with differing pathological pictures and classifications may well be different stages of the same process.

CLASSIFICATION

A number of classifications of myocarditis have been suggested, principally temporal, pathologic, and etiologic. Because of the many variable and unknown factors which characterize the problem of myocarditis, no classification is really satisfactory.

An etiologic classification is the ideal one, but is not satisfactory because of the limitations of medical knowledge. Quoting again from Gore⁷, "there are few cases of myocarditis in which a specific etiologic factor is not present. There are, also, few cases in which a specific etiology can be named from the microscopic changes alone. Such an assay usually requires a good clinical history, including the laboratory findings, and a knowledge of the changes in tissues other than the heart".

Candel and Wheelock⁵, suggested a comprehensive classification for myocarditis that I have amplified as follows:

CLASSIFICATION OF MYOCARDITIS (Modified from Candell and Wheelock)

I. SEPTIC MYOCARDITIS

Characterized by abscess formation in septicemia and in association with subacute bacterial endocarditis.

II. SPECIFIC MYOCARDITIS

Characterized by changes which histologically are so characteristic that a diagnosis can be made from the morphologic picture alone without recourse to bacteriologic studies or consideration of changes elsewhere in the body, e.g., rheumatic fever, tuberculosis, syphilis (gummatous) and certain parasitic diseases.

III. NON-SPECIFIC MYOCARDITIS

Characterized by changes which histologically may be quite variable or may be suggestive of a particular etiology, but in which a specific morphology is lacking.

A. *Known (or suspected) etiology:*

Associated with bacterial infections; Bac-

terial toxins; Virus infections; Rickettsial infections; Various types of parasitic organisms; Disordered metabolism related to vitamin deficiency, hormonal imbalance or electrolyte alterations; Hyperergic responses; and with diseases of unknown origin.

B. *Unknown etiology:*

Not associated with recognizable pathology elsewhere in the body, and occurring in the absence of any known cause of heart disease.

ETIOLOGY

In the great majority of cases, the etiology of non-specific myocarditis is that of the preceding or accompanying illness. Several factors merit particular consideration, however.

The role of virus infections as a cause of heart muscle damage is assuming increasing importance. Schmidt demonstrated that a virus isolated from a chimpanzee dying of interstitial myocarditis produced myocarditis and encephalitis in mice and hamsters²². The morphologic findings in the heart duplicated to a remarkable degree the myocardial lesions found in the human heart muscle in several virus diseases. Smadel and Warren working with the same virus, designated encephalomyocarditis virus, found a specific rising blood titre in 17 of 44 soldiers who had "Three Day Fever" in Manila, characterized by CNS symptoms but without cardiac signs or symptoms²⁶. There were no fatalities. Saphir studied three cases at autopsy who had involvement of the central nervous system and myocardium and designated them as cases of encephalomyocarditis presumably due to virus infection, although virus studies were negative²⁷.

The myocardium has been found involved in a very high percentage of fatal cases of poliomyelitis²³, and Spain concluded that heart involvement might contribute to the notoriously prolonged debility and convalescence so often seen in patients with even a relatively mild case²⁴. Jungeblut and Edwards isolated the virus of poliomyelitis from heart muscle in three fatal cases, and reproduced myocardial lesions in monkeys²⁵. Thus they concluded that myocarditis is caused by the direct effect of the virus on the heart. Ungar described round cell infiltration of the heart in a fatal case of epidemic encephalitis³⁰.

Finland reported two cases of rapidly fatal infections in which Influenza A virus was isolated from the lungs, and there were extensive interstitial and parenchymal myocardial changes²⁸. The question

of "influenzial myocarditis" was raised by Mallory to account for the death of a young woman who died of rapidly progressive cardiac failure developing after a simple respiratory infection⁵⁷.

Allergy or altered response has also assumed an important role in the production of granulomatous and/or diffuse interstitial myocarditis caused clinically in humans and experimentally in animals by sulfonamides. Hyperergic response of the tissues may well be a factor that causes this type of pathologic response in other situations as well⁴²⁻⁴⁵.

The possibility of myocarditis resulting from vitamin deficiency has been discussed by a number of authors. Toreson describes a fatal case and attributed it to vitamin deficiency that did not respond to vitamin therapy because the heart was too badly damaged³⁹. He quoted Lindberg who suggested that isolated myocarditis may represent an end stage of beriberi. Brinkman postulated acute heart changes due to gross vitamin deficiency that respond to therapy, and a subacute form due to subminimal avitaminosis with irreversible cardiac damage and no response to therapy⁴⁰.

Hormonal and neurogenic factors in heart disease are of particular interest in view of Raab's concept of the role that adreno-sympathogenic catecholamines play in the production of heart disease³⁷⁻⁷⁴, and Selye's studies of stress with resultant alarm reaction and diseases of adaptation⁷⁵. This is pure speculation, but it is interesting to note that there are several reports of cases of sudden death in young soldiers, men under stress, due to isolated, idiopathic, non-specific myocarditis⁵⁸.

A case was described by Schenken and Heibner with classical clinical and pathological findings of non-specific isolated myocarditis⁷⁶. It was not "idiopathic", however, for a micro-aerophillic streptococcus hemolyticus was isolated in pure culture from the heart muscle. This raises the question of whether similar bacteriologic agents may be demonstrable in other "idiopathic" cases if vigorously searched for.

Jonas reported a very interesting group of five cases of sudden cardiac death who showed idiopathic, but not isolated non-specific myocarditis. Granulomatous lesions were demonstrated in the myocardium, and similar lesions in the lungs, lymph nodes, and liver⁸⁰.

Although, by definition, the etiology of Fiedler's myocarditis is unknown, it almost certainly is not a distinct disease entity, and the pathologic picture is indistinguishable from myocardial lesions found

in a wide variety of conditions. The probability is that, as clinical and pathological diagnostic techniques are improved, an increasing number of such cases will prove to be secondary to a specific cause, and will then no longer be listed as "idiopathic". The unexplained problem will then be as now, what is the determining factor in many conditions that cause a myocardial reaction in some patients and not in others.

PATHOLOGY

Two types of cellular reaction have been regularly described for nonspecific myocarditis, one characterized by granulomatous lesions, and the other by a more diffuse type of inflammation. There is considerable question whether these two types represent variants of the same disease, perhaps based on its duration or severity, or represent different disease processes with different etiologies. The granulomatous type is much more rare than the other, but some cases show a blending of the two pathological pictures in the same section or scattered through the heart muscle.

The histologic picture depends upon the relative amounts of interstitial edema, cell infiltration (predominantly polymorphonuclear cells, lymphocytes, plasma cells and large mononuclear cells, with giant cells in some granulomatous types), and muscle fiber change. If the patient survives long enough there is myocardial fibrosis which varies in degree with the extent of the original muscle damage.

CLINICAL OBSERVATIONS

The clinical picture of non-specific myocarditis of known etiology depends upon the primary disease, with the added factor of sudden death or progressive heart failure in fatal cases, or clinical signs and symptoms of heart involvement, prolonged convalescence, and debility in non-fatal cases. Saphir has pointed out that the underlying myocarditis is all too often overlooked in planning treatment and estimating prognosis. He calls attention to a deceptive characteristic of post-infectious myocarditis; a so-called "healthy interval" of varying length with heart symptoms developing after the etiologic infection seemed to have been controlled or healed.

The cases of isolated, idiopathic myocarditis have a very varied pattern, and an analysis of such cases is difficult because of the problems of diagnosis and classification previously referred to. Fifty cases were selected from the medical literature and four of our cases were added that seemed to fit the strict criteria of idiopathic, isolated myocarditis. Of these there were thirty-six instances of sudden death in

persons previously considered to be healthy. Most were found dead or died within an hour or so of an episode of loss of consciousness or acute heart failure. All but two were males, but fourteen of the cases were reported from the Armed Forces Institute of pathology which is obviously not a fair sampling of the general population. The age range was 18 to 57. At autopsy four of the cases showed granulomatous lesions, with the balance having diffuse infiltration.

Of the other eighteen cases there was an age range from 19 to 50, with the majority in the third and fourth decades, and an incidence of twelve males and six females. Shortness of breath was the most frequent and almost invariable presenting symptom, usually associated with cough and edema. There was often weakness, fatiguability, chilliness or actual chill in cases with acute onset of symptoms, and precordial pain which was occasionally suggestive of an acute myocardial infarction. In several cases, dizziness, transient loss of consciousness, convulsions, and nausea and vomiting were important symptoms. Mural thrombi and embolic phenomena occurred in ten patients. They may herald the disease, or may occur as complicating or terminal manifestations. Thrombi are prone to develop when the inflammatory process nears the sub-endocardial layer.

Physical examination was extremely variable, but there were usually tachycardia, normal or low blood pressure, and normal to low grade fever, associated with other evidence of a failing heart such as gallop rhythm, enlarged heart, dyspnea, cyanosis, enlarged tender liver, and edema. There were often signs relating to embolic phenomena.

Electrocardiographic changes did not follow any typical pattern, but usually showed diffuse myocardial disease as evidenced by low voltage, alterations in T waves, and conduction and rhythm disturbances. The sedimentation rate was usually normal. The white count was variable, but an increase in total lymphocytes might be an aid in differentiating myocarditis from an acute myocardial infarction.

The duration of the disease extended from a few days, although the exact time of onset is admittedly difficult to determine, to many months. Treatment is directed toward alleviation of the heart failure, is not satisfactory, and all diagnosed cases have had a fatal termination. This is either because the disease itself is invariably fatal, or else because, at this time, although the diagnosis may be suspected, it is never substantiated clinically and is, therefore, essentially an autopsy diagnosis. Thus, though there

may well be mild forms of the disease which progress to recovery, they are never proven to be isolated, idiopathic myocarditis.

SUMMARY

The literature relating to non-specific myocarditis has been reviewed.

The clinical features of non-specific myocarditis of known and unknown origin are described. Its frequency and potential importance are emphasized.

Fifty cases of isolated myocarditis from the literature and four from our series are analyzed. Fielder's myocarditis should be considered in any patient with rapidly progressive myocardial failure and/or embolic phenomena in the absence of any evident or known cause or myocardial disease, and in the absence of disease elsewhere in the body.

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Elephant Has Hardening of Arteries

Heart attacks resulting from the effects of hardening of the arteries can strike elephants as well as men and dogs according to three California doctors.

They reported an autopsy on a female Indian elephant who died of acute heart failure secondary to severe arteriosclerosis in many small arteries around the heart.

According to the physicians, their report in the *March Archives of Pathology*, published by the American Medical Association, is the first one describing arteriosclerosis in elephants. It has previously been found in humans, cats, dogs, pigs, birds, chickens, and cows.

Few autopsy reports on elephants have been made, but studies go back to ancient Greece and Rome. Both Aristotle, the Greek philosopher, and Galen, a Greek physician who lived in Rome about 200 A.D., reported elephant studies, with Galen describing a heart condition as "a bone in the heart."

The San Francisco elephant was at least 47 years old and had lived in the San Francisco Zoological Gardens since 1925. The animal, which appeared healthy the night before death, was found lying on its side and unable to rise a few hours before death.

Autopsy showed severe arteriosclerosis of the major arteries. In the small coronary arteries, the disease was similar to that observed in birds, dogs, cats, and humans. However, deposits of fatty substances, usually found in the small arterial walls of humans with similar disease, were absent. Similar narrowing of the arteries without fat deposits may occur in old dogs and cause sudden death.

The physicians said that heart failure occurred in the elephant apparently because the narrowing of the small coronary arteries diminished the blood flow to the heart. The same thing has happened in human beings. Not only are the physiological occurrences similar in man and the elephant, but the same terms—"acute myocardial failure" due to "coronary insufficiency"—are used in autopsy reports to describe the conditions.

Drs. Stuart Lindsay, San Francisco, Richard Skahen, Oakland, and I. L. Chaikoff, Berkeley, from the departments of pathology and physiology of the University of California School of Medicine, did the work under grants from the Alameda County Heart Association and the United States Public Health Service.

Dr. Craven and the Captivity of Jefferson Davis at Fort Monroe

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DEFEATED and abandoned by all but a handful of his followers, Jefferson Davis, first and last President of the Confederate States of America, was captured near Irwinville, Georgia, on May 10, 1865. His devoted wife rushed forward when it appeared that a Northern cavalryman was about to shoot down her defiant husband.* The capture put an end to Davis' plan to re-establish the capital of the Confederacy in Texas in order to continue the war. When he learned from his captors that he was accused of plotting the assassination of Abraham Lincoln, Davis denied it with indignation. He pointed out that he would much rather have dealt

with Lincoln than Lincoln's successor, Andrew Johnson.

To prevent escape or rescue, the captive was taken to Fort Monroe, Virginia, the most powerful fort in the country. Although situated in Southern territory, Fort Monroe had defied capture during the war of 1861-1865, remaining firmly in the hands of the United States Government. Jefferson Davis was locked up in a casemate (or chamber) in the wall of the fort on May 22, 1865. "Davis can never escape," wrote the correspondent of the *New York Herald*. "Neither the great Napoleon at Elba or St. Helena, nor the lesser Napoleon at the Fortress of Ham was subjected to greater surveillance. The great Corsican escaped from Elba, Napoleon the lesser escaped from Ham, but no such hope for Davis. He can never escape."

The Confederate president rebelled when his captors attempted to put him in irons the day after his arrival. He knocked down the stalwart blacksmith, who sprang to his feet and would have struck the prisoner with his hammer had not the Officer of the Day thrown himself between them. Davis then attempted to seize the musket of a guard. He struck the foremost of four husky men called in to subdue him. After a fierce struggle he was held on the cot long enough for the blacksmith to rivet the irons on his ankles.

The Chief Medical Officer at Fort Monroe in 1865 was Lieutenant Colonel John Joseph Craven, a most unusual man. Born in New York City on September 8, 1822, he was reared in Newark, New Jersey. Self-educated, Craven became deeply interested in science. He invented the first successful underwater telegraphic cable, which was laid across the Hudson River at New York City in 1848. Through an adverse decision of the Patent Office, Craven was deprived of the benefits of this invention. After prospecting for gold in California, Craven returned to Newark in 1851, where after studying medicine he set up as a practicing physician in Newark.

In 1861 Craven secured a letter of recommendation from Dr. Willard Parker, the celebrated surgeon of New York City. Armed with Parker's letter, Craven went to Washington where he had a personal inter-



The Capture of Jefferson Davis.

* It has often been asserted that Jefferson Davis, when captured, was "disguised as a woman." It would seem that in the darkness of his tent he hastily donned his wife's cloak (raglan) by mistake. As he stepped out of his tent, his wife threw a shawl over his head. For a full discussion of this controversy, see the eminent Northern historian, James Ford Rhodes; *History of the United States from the Compromise of 1850* (New York, Macmillan Co., 1904), Vol. V, pages 182-183.

view with Abraham Lincoln. The President arranged for Craven to take the examination for Brigade Surgeon, which examination Craven passed. The New Jersey doctor served as medical officer with the expeditions against Port Royal, South Carolina, and Fernandina, Florida. He distinguished himself at the siege of Fort Pulaski, Georgia. He was Chief Medical Officer of the operations against Charleston, South Carolina, in 1863. In the spring of 1864, Dr. Craven was made Medical Director of the 10th Army Corps which was moved to Virginia for the operations against Richmond. In January 1865 Craven was made Chief Medical Officer of the Department of Virginia and North Carolina with headquarters at Fort Monroe. And that is how Dr. Craven happened to be at Fort Monroe when Jefferson Davis was brought there accused of plotting the death of Abraham Lincoln.

Dr. Craven first saw Jefferson Davis on the morning of May 24, 1865. He was so alarmed by the sickly appearance of the Confederate President that he at once went to General Nelson A. Miles and recommended that the irons be removed from the prisoner in the interest of his health. The irons were removed on May 28. Dr. Craven was thrilled because the most exalted power in the land had seemingly deferred to his medical judgment. To him it seemed that the healing art was second only to the priesthood. Craven made other recommendations which resulted in a more humane treatment of the prisoner. Eventually he succeeded in getting Davis moved from the casemate to better quarters in Carroll Hall in the northwest bastion of the fort.

Craven kept a diary of his contacts with Jefferson Davis. He felt that the views and opinions of this captive were of importance. Was not Davis the leader of a cause which had cost the lives of over 600,000 men? Was not Davis the former ruler of 9,000,000 people? Had not Davis been the President of eleven seceded States whose total area equalled that of France, Italy, Spain, Portugal and Sweden combined? Craven made notes of the subjects which he and Jefferson Davis discussed during his visits to the cell. But Craven's academic interest in the fallen leader was not viewed with favor by some of his superiors. They felt that the physician was getting too sympathetic with his prisoner-patient. In December 1865 Craven was removed from attendance on Jefferson Davis and in January 1866 he was mustered out of the service.

* *La vie de prison de Jefferson Davis . . . scènes tirées du journal rédigé par le Dr. Craven . . . traduites de l'anglais par Wallace S. Jones* (Paris, Achille Faure, 1866).

Craven returned to his home in Newark, New Jersey, where in June 1866 he published a book on his experiences entitled *Prison Life of Jefferson Davis*. His book had a large sale. It was published not only in New York, but in London and Paris* as well. Craven argued that if Jefferson Davis was guilty of plotting the assassination of Abraham Lincoln or authorizing cruelty to Northern prisoners, let him have a fair and open trial. If his only guilt was rebellion, then let a great nation show him magnanimity—liberate him, and Davis would be a power for good in the future of the Southern States.

Before long such men as Horace Greeley, editor of the New York *Tribune*, and Gerrit Smith, one-time supporter of John Brown, were advocating the release of Jefferson Davis from Fort Monroe. Thaddeus Stevens, powerful Republican leader in the Senate and an ardent champion of Negro rights,



Dr. John J. Craven, Brevet Lieutenant Colonel, U. S. Volunteers. C

refused to believe that Davis had any connection with the assassination of Abraham Lincoln. Stevens even offered to serve as volunteer counsel for Davis! This offer was not accepted, as Davis was already represented by the distinguished New York trial lawyers, Charles O'Connor and George Shea.

Jefferson Davis was released from Fort Monroe on May 13, 1867, on a \$100,000 bail bond signed by Horace Greeley, Gerrit Smith, Commodore Vanderbilt and others. After traveling for a while in Europe, Davis returned to this country where he engaged

in business for some years at Memphis, Tennessee. Eventually he and his wife retired to a mansion near Biloxi, Mississippi, known as "Beauvoir". Here he wrote a history of the Confederate States and received visits from his former followers. Davis died of bronchopneumonia in 1889 at the age of eighty-one. He was buried in New Orleans, Louisiana, with impressive ceremonies which lasted several days. In 1893 his body was removed to Richmond, Virginia, his former capital, where it lies today.

Dr. Craven moved from Newark to Jersey City, New Jersey, in 1867, where he resumed the practice of medicine. Apparently because of his knowledge of chemistry and sanitation, Craven was appealed to by the owners of the Communipaw slaughterhouse, which had been declared a public nuisance by the courts. Craven rescued his clients from financial disaster by inventing processes and machinery to convert their noxious waste into salable by-products. Having shown the slaughterhouse owners how to make thousands of dollars from what they had been throwing away, Dr. Craven turned his inventive genius to the problem of the preservation of fresh meat. He invented a refrigerating chamber for use in cold storage and for transportation of fresh meat in railroad cars and steamships. Craven and his son, William D. Craven, became pioneers in the shipment of dressed beef to England.

Craven's inventions and business interests made him a wealthy man. In 1881 he retired from medical practice and moved to Patchogue, Long Island, New York. With his usual zeal, Craven took a leading

role in his adopted community. He was President of the Board of Education, President of the Board of Health, President of the Library Association, Fire Commissioner, and President of the Cemetery Association. When John J. Craven died of a cerebral hemorrhage on February 19, 1893, at the age of 70, he was universally mourned by his fellow-townsmen. He was buried at Patchogue.

On October 1, 1953, a picture of Dr. Craven in the uniform of a medical officer was placed in what is now called the Jefferson Davis Casemate at Fort Monroe. Principal speaker at the ceremony was General John E. Dahlquist, Commanding General, Continental Army Command, Fort Monroe. This distinguished soldier of World War I and World War II paid a simple but eloquent tribute to Dr. Craven. General Dahlquist said: "Dr. Craven believed in the policy of humane treatment of prisoners of war."

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Footnote: The photographs used in this article were reproduced by courtesy of the Committee for the Fort Monroe Museum Casemate.

Portable Telephone Aid

A device which allows hard-of-hearing persons to use any telephone without inconvenience is described in the January 28 *Journal of the American Medical Association*.

A portable, pocket-sized, telephone amplifier, called the Scottie Phone-Aid, has been developed. It can be clipped to any telephone receiver in a moment, Dr. Matthew N. Hosmer, of the subdepartment of otolaryngology, University of California School of Medicine, San Francisco, said.

Its use eliminates the necessity for the hard-of-

hearing person to hold the receiver against his own hearing aid. The plastic case is thin enough to fit the receiver without disturbing the normal relationship between the mouth and the transmitter. The amplifier is powered by two small batteries and three transistors. The pick-up of speech from the telephone is through an induction circuit located in the small arm that clips the instrument to the receiver. All room and magnetic disturbance noises are eliminated by the amplifier, which was developed by the Remler Company, San Francisco.

Ectopic Pregnancy

Selected data from 100 consecutive cases

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HISTORICALLY and clinically the subject of abnormally located pregnancy has been and is one of the most interesting and fascinating in the entire realm of obstetrics and gynecology. Pregnancy developing outside of the uterine cavity is a serious disease, usually fatal for the fetus and if not properly managed may end in tragedy for the mother.

In 1881 Robert Lawson Tate was asked to see a patient whose condition had been diagnosed as ruptured tubal pregnancy with internal hemorrhage. He concurred with the diagnosis but refused to operate, the patient subsequently died from hemorrhage, and after post mortem examination he concluded that surgical intervention would have saved the patient. Prior to this time the mortality rate was 67%. Two years later Tate did operate on a patient with ruptured tubal pregnancy, the patient died (much to his disappointment) but he continued to operate and lost but one of the next 40 patients.

100 consecutive ectopic pregnancies have been reviewed over a period of 5 years, 1949-1953 at Norfolk General Hospital.

INCIDENCE

In this classical monograph published in 1921 Schumann estimated that ectopics occurred about once in every 300 pregnancies. (2) In our series there were 100 ectopics in 5474 Gynecological admissions, representing 1.8% or 1 in 54 Gynecological admissions, 1 in 75 deliveries.

There was 1 abdominal pregnancy and 5 interstitial pregnancies in this series.

AGE

In this series the ages range from 19-42. On the

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The papers by Drs. Jones, Whicker, Bickers, Parker, Rucker, Wilson and Ellett made up a Symposium on Obstetrics and Gynecology presented at the annual meeting of The Medical Society of Virginia, Richmond, October 16-19, 1955.

whole the greatest number of patients fell in the 20-35 age group. Of the 100 cases 62 were white, 38 were colored. 25% had never been pregnant before. Out of 100 cases there were 3 recurrent ectopic pregnancies.

ETIOLOGY

All of the numerous theories to explain ectopic pregnancies may be classified in two chief groups.

Factors delaying migration of the fertilized ovum, and factors that increase the receptiveness of the tubal mucosa to the fertilized ovum.

The former group include:

- 1—Chronic inflammatory disease (notably gonorrheal origin), post abortive and puerperal infections may likewise be concerned.
- 2—Congenital anomalies.
- 3—Tumors.
- 4—Pelvic surgery.
- 5—Antibiotics.

It has been suggested the antibiotic treatment of salpingitis has increased the incidence of ectopic pregnancies. This therapy may prevent tubal closure but not the mucosal changes which eventually interfere with transmission of ovum. In the latter group tubal implantation is encouraged if areas of ectopic endometrial tissue are present; these respond to the stimulus of pregnancy as does the normal endometrium and may offer a suitable site for growth for the fertilized ovum.

DIFFERENTIAL DIAGNOSIS

Ectopic pregnancies may be the most missed diagnosed of all serious pelvic diseases. While it usually is possible to diagnose tubal pregnancy with reasonable accuracy, uterine abortion, salpingitis, appendicitis and more rarely, ruptured corpus luteum or follicular cyst may produce symptoms so similar that differentiation is difficult. Therefore we believe in the inclusion ectopics in the differential diagnosis of all

uncertain conditions presented by females of the child bearing age.

Pelvic inflammatory disease may simulate tubal pregnancy. Salpingitis is commonly bilateral. In the more acute cases one would find fever, an increase in the sedimentation rate with elevation of the leukocyte count.

In uterine abortions, bleeding is more profuse, usually bright red in color. Pain is in the mid line and is usually less severe.

Appendicitis—Symptoms of pregnancy are usually absent. At the onset, however, pain is noted about the umbilicus. Laboratory aids are of value.

Cyst—Corpus luteum, simple serous, cyst with twisted pedicle, endometrial cyst. Marchetti attributed many diagnostic errors to these 4 types of ovarian cyst.

DIAGNOSTIC METHODS

1. History. The most valuable diagnostic aid is meticulous history. In typical cases, the symptoms given by the patient and her general appearance should be sufficient evidence for immediate surgery. It is in the atypical case in which the symptoms are vague and limited, that other diagnostic aids are of great value. These patients suspected of having ectopic pregnancies should be kept under close observation in the hospital.

Examination under anesthesia should never be neglected regardless of how certain the diagnosis may appear. Since the introduction of pentothal, examination has been simplified. This gives quick and adequate relaxation and may be supplemented by cyclopropane if laparotomy is indicated. Cyclopropane was most frequently used in this series. Exploration of the cul-de-sac is a simple procedure. If blood is present, it usually means intra-peritoneal bleeding.

Dilatation and Curettage—In the urgent case there is no indication for curettage. In the atypical case it is of value only if chorionic tissue is present, therefore, it has limited value as a diagnostic aid.

Laboratory—Hemoglobin; for a short period after an acute hemorrhage, the hemoglobin determination is not a reliable index of the blood loss.

Leukocyte count was of little diagnostic value in our series due to its variations.

Hormone tests for pregnancy—A positive test indicates the existence of living chorionic tissue. It does not locate the pregnancy but may aid in differ-

entiating tubal gestation from conditions unassociated with tubal pregnancy.

Curtis and Studdiford state that the sedimentation rate is of definite value in differentiating tubal pregnancy from inflammatory exudates. Others do not concur in this opinion. We were not impressed with its value.

MANAGEMENT

Once ectopic pregnancy has been diagnosed, immediate surgery is indicated. Blood replacement before and during the operation is of prime importance. Oxygen may be indicated pre and post operative. Antibiotics are indicated for infections. The technique of the operation should be to cure the ectopic. If her condition is excellent and hemorrhage minimal one may perform other indicated pelvic surgery, including appendectomy. On the contrary if the patient has any appreciable blood in the abdomen, salpingectomy or salpingo oophorectomy is all that should be performed.

SUMMARY

1. 100 cases of pathologically proven ectopic pregnancies have been reviewed over a 5 year period.
2. The incidence was 1 in 54 Gynecological admissions, or 1 in 75 deliveries.
3. In our opinion ectopic pregnancy is more frequent in the long sterile woman.
4. Pelvic inflammatory disease, uterine abortions, previous pelvic surgery contribute most to the incidence of ectopic pregnancy.
5. Pain, amenorrhea, spotting or brownish vaginal discharge were the cardinal symptoms recorded.
6. Whole blood, plasma and intravenous solutions are indispensable in the treatment of ectopic gestation.
7. Colpotomy was of limited application in this series.
8. Surgery usually should be limited to the treatment of primary condition.
9. There was no mortality in this series.

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Menstrual Irregularity

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PATIENTS who present amenorrhea or oligomenorrhea as a prominent symptom are the daily concern of the practicing physician. Differential diagnosis and treatment can usually be determined by careful clinical history and simple office procedures.

The menarche normally appears between the 10th and 15th year. There usually follows a period of irregular bleeding as the pituitary-ovarian-endometrial system matures. Ovulation occurs with fair regularity by the 13th or 14th year.

PRIMARY AMENORRHEA

Delayed onset of menses has little significance if the somatosexual development is normal. If mammary growth and pubic and axillary hair are well developed a functional pituitary-ovarian system is present. Primary amenorrhea in a patient with recurrent abdominal cramps and symptoms of impending menstruation calls for a pelvic examination. This may disclose an imperforate hymen. Hematocolpos and hematometra behind a bulging hymen offers the rare opportunity for dramatic cure of amenorrhea.

A more frequent problem is the young girl with poor mammary development, deficient or absent axillary and pubic hair, infantile genitalia, and retarded onset of menstruation. Delayed sexual awakening indicates pituitary-ovarian insufficiency. Here the most dramatic effects of estrogen therapy are demonstrated. The thin, pallid, asexual, biologically retarded girl is brought into something resembling adult female habitus by long continued cyclic estrogen treatment. Mammary development, axillary and pubic hair growth, feminine fat depots, and even cyclic uterine bleeding are established.

A case from my files will illustrate. A young lady just past her 17th birthday has the somatosexual development of a child. Mentally and intellectually she is adequate having reached the senior year in high school. She was placed on cyclic treatment with diethylstilbestrol. Withdrawal bleeding occurred 4 days after completing the first 20 days of diethylstilbestrol, 1.0 mg. daily. Therapy was repeated on the 5th through the 24th days of succeeding cycles with rapid and striking somatosexual development. Mammary growth was induced and dark pigmen-

tion of the areola appeared. Feminine fat depots transformed the angular boy-like figure into the rounded form of young womanhood. Vaginal and uterine growth occurred and cyclic bleeding followed each cycle of treatment. Psychically and somatosexually she assumed the habitus of maturity but, alas!, she is destined to a life of infertility. There is no treatment which induces ovulation. Occasionally these girls continue to have irregular episodes of uterine bleeding when treatment is discontinued, more often they lapse into their amenorrheic state but the secondary sex changes are preserved.

OLIGOMENORRHEA

We are consulted frequently by the mature woman with normal somatosexual development, often with a history of normal fertility, who complains of long interval cycles. She menstruates two or three times a year. The menarche has occurred at the usual age. Such long interval cycles may be normal for her. Menstruation at 2 to 3 months' interval from a secretory phase endometrium in a woman with unimpaired fertility is physiologic. The ovulatory nature of her cycle is suggested by the premenstrual breast and abdominal fullness. Such premonitory signs are not seen in anovulatory cycles.

It may require much explaining to convince such a one that she is normal. Reassurance is aided by having her keep a basal temperature chart. The chart provides evidence of the ovulatory or anovulatory nature of her cycles. The biphasic curve with an elevation of 0.4° to 0.5° during the 12 to 18 days before flow is presumptive evidence of physiologic adequacy. A good biphasic shift assures the patient of her potential fertility. It gives her peace of mind. Furthermore, experience has well demonstrated that any attempt on our part to regulate a fertile cycle by any form of endocrine therapy invariably fails. A fixed physiologic pattern which fulfills the biologic needs of the individual is resistant to change. On the contrary the patient with a long interval cycle and a monophasic temperature curve has endocrine dysfunction. Her cycles are anovulatory. She is a candidate for cyclic steroid therapy.

Witness the two temperature charts here reproduced. The first (Fig. 1) is a patient who men-

struates every 3 to 4 months. She is the mother of two healthy children, and albeit her cycle is irregular she ovulates and menstruates several times a year. In contrast look at the second chart (Fig. 2) in which the curve is monophasic indicating the absence of ovulation. This patient has been married

the parenteral injection of estrogen-progesterone. Cyclogesterin 1 c.c. every other day for 3 doses is followed by withdrawal bleeding within 6 days if the endometrium is responsive. The first treatment is given parenterally to test this response. Subsequent treatments are given orally in the form of a

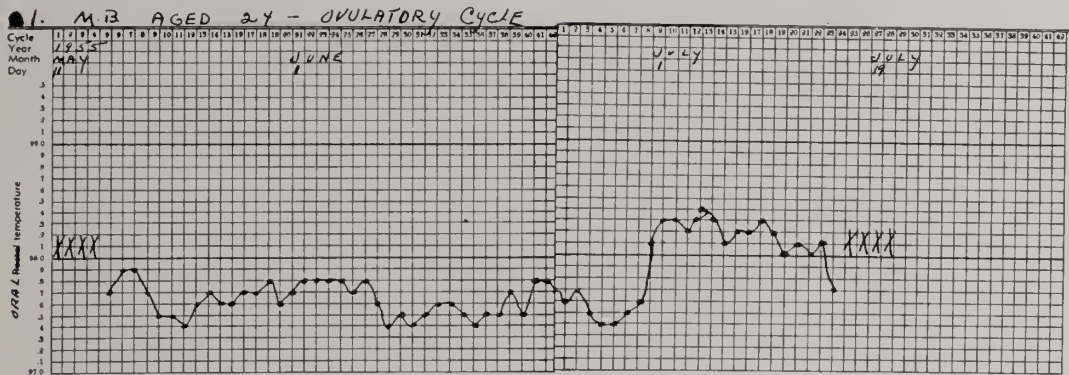


Figure 1

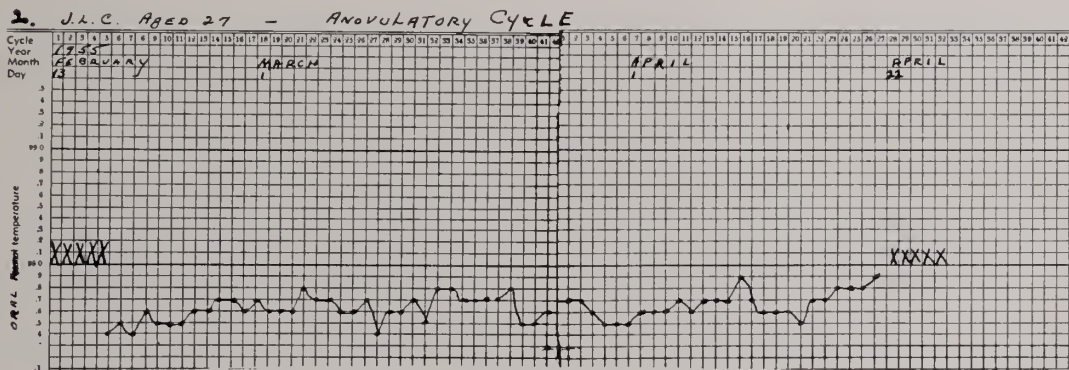


Figure 2

4 years and is infertile. In the first instance menstruation is anticipated by prodromal symptoms heralding the coming flow: breast and abdominal fullness, low back pain, and premenstrual awareness. In the latter menstruation appears unannounced. This is a point worthy of interest. Premenstrual symptoms always suggest corpus luteum activity. In these two cases the presumptive diagnosis based on history and temperature curve was confirmed by endometrial biopsy. In the first, biopsy showed a well developed secretory phase endometrium. In the second, only an estrogen type of endometrial proliferation was found.

Treatment for the former is reassurance. Endocrine therapy in the face of normal somatosexual development and menstruation at whatever interval from an ovulatory cycle will effect no permanent change in the menstrual habit.

Conversely, a well planned course of treatment for the anovulatory long interval cycle may be most gratifying. A bleeding episode is first induced by

tablet containing 1.0 mg. of estrogen and 30.0 mg. of progesterone (Cyclogesterin), t.i.d. for 5 days beginning on the 18th day of the induced cycle. Such oral therapy is repeated in 5-day treatment courses on the 18th through 22nd day of the cycle for several months. A regular bleeding cycle is established in most patients while under treatment. Something over 50% will continue after treatment to menstruate at fairly regular intervals for indeterminate periods. Other lapse promptly into their former oligomenorrheic state. The occasional patient is primed to full ovulatory cycles.

METABOLIC DISTURBANCES

Amenorrhea and oligomenorrhea may result from pituitary-ovarian dysfunctions secondary to metabolic disturbances. An example frequently encountered in private practice is the disturbed menstrual rhythm associated with obesity. Long interval cycles in obese patients is explained theoretically on the ground that ovarian steroids being fat soluble hormones are

stored in fat depots thus denying the endometrium its normal stimulus. As adipose tissue is lost through diet restriction estrogen depots are released to effect normal growth and vascularity to the endometrium. All of us have had the experience of seeing the amenorrheic woman attain rhythmic, ovulatory menstruation following rigid dietary restriction.

Psychiatric disorders often present amenorrhea or oligomenorrhea as an early symptom. Experience during the recent war with women confined to concentration camps demonstrated the effects of emotional and psychic trauma upon menstrual rhythm. Many reports in foreign literature describe "hypothalamic amenorrhea".

ANDROGENIZING SYNDROMES

Amenorrhea or oligomenorrhea associated with hirsutism and infertility is a clinical picture presented by many patients. Dysfunction of the adrenal cortex is the seat of trouble in many of these patients. The irregular cycle dates to adolescence. Some tendency towards virilism appears early in the menstrual life. A functional defect in the adrenal cortex limits cortisone synthesis thus denying reciprocal inhibition to ACTH production. Excess ACTH overactivates the androgen producing cells of the adrenal. Moderate elevation of 17-ketosteroid excretion is found in the urine.

These patients have been treated successfully by the judicious use of cortisone. Under cortisone treatment ACTH production is reduced and 17-ketosteroid excretion drops to normal. Many of these patients begin to menstruate cyclically. The dose of oral cortisone is 10.0 mg. twice daily for long periods. Such patients tolerate continuing doses of cortisone without side effects since it is replacement therapy for deficient cortisone production. The hirsute, amenorrheic woman often responds to cortisone therapy with cyclic menstruation. Hair growth is retarded but I have yet to see one who could completely forsake the razor or depilatory. Cyclic menstruation is established in a fair number of them and pregnancy has been reported in patients with a long history of infertility.

Stein-Leventhal Syndrome

Obesity, hirsutism, amenorrhea, and infertility associated with large, hard, sclerotic ovaries form a symptom complex known as the Stein-Leventhal syndrome. The large, polycystic, sclerotic ovaries are treated surgically. Wedge resection reducing the ovarian mass to approximately normal size often establishes cyclic menstruation. Hair growth is

retarded but not completely lost. Fertility is established in a relatively high percent.

Such a case was seen recently. She was 24 years of age, had menstruated only a few times since the menarche at age 14. She was 5 years married and infertile. Pregnancy occurred 4 months after wedge resection of the ovaries.

Cushing's Syndrome

Amenorrhea and oligomenorrhea are often the first symptoms of Cushing's syndrome. Recently I had the unhappy experience of treating such a patient by estrogen-progesterone therapy in whom a bleeding episode was not induced. She returned some 12 months later, after a visit to the Johns Hopkins, with a full blown clinical picture of Cushing's syndrome: purple striae, glycosuria, hyperglycemia, osteoporosis with compression fractures, and hypertension. Menstruation has occurred cyclically since a bilateral total adrenalectomy was done by Dr. Austin Dodson, Jr.

There is a lesson here. Any amenorrheic, oligomenorrheic patient who fails to establish a bleeding rhythm on estrogen-progesterone therapy should alert us to the possibility of a dysfunction other than pituitary-ovarian insufficiency. The amenorrheic, hirsute woman, the patient with Stein-Leventhal syndrome, or Cushing's syndrome does not menstruate following cyclic steroid therapy. Patients who do not bleed after a trial with such treatment should be suspect of some disease or dysfunction outside the pituitary-ovarian axis.

Virilizing Tumors of the Ovary

Androgenizing tumors of the ovary: alrenblastoma, adrenal cell tumors, Leydig cell tumors, are exceedingly rare. When they do occur, amenorrhea and oligomenorrhea are early symptoms. Voice change and enlargement of the clitoris antedate the amenorrhea or oligomenorrhea. Patients suspected of an androgenizing tumor either in the adrenal or the ovary should be placed on cortisone in large dose, 100.0 mg. daily for a week. A 17-ketosteroid assay is done before and after treatment. Cortisone suppresses 17-ketosteroid excretion from adrenal-cortical hyperplasia but has little effect on the excretion from an androgenizing tumor either in the adrenal or ovary. This provides a useful diagnostic test for differentiation of ovarian or adrenal neoplasm from hyperfunction.

SUMMARY

We have briefly touched upon those clinical states in which amenorrhea and oligomenorrhea are prom-

inent symptoms. Differential diagnosis is made in the majority of patients on the basis of clinical history alone. The basal temperature aids in differentiating the ovulatory from the anovulatory cycle.

Estrogen therapy in 20-day treatment courses is of value in bringing the asexual, biologically retarded girl with primary amenorrhea into a reasonable state of female somatosexual maturity.

Cyclic estrogen-progesterone establishes a normal bleeding cycle and sometimes induces ovulation in

the long interval anovulatory cycle. It is of no value in the long interval ovulatory cycle.

Cortisone for the oligomenorrheic hirsute, infertile woman is occasionally helpful.

Surgery is indicated in the Stein-Leventhal syndrome, androgenizing tumors of the ovary and adrenal cortex, and in rare cases of Cushing's syndrome with adrenal cortical hyperplasia.

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Mental Health

Twenty years ago the chance of being hospitalized for a severe mental illness during a lifetime was one in twenty. Today it is nearly one in ten. More than ten million Americans—one in every sixteen—are now suffering from some form of mental disorder. About three-fourths of a million of these are in the care of mental hospitals—14,000 in Virginia alone. Mental illnesses account for more than half the number of patients in all hospitals for all diseases in the entire country. Moreover, some two and one-half million men, women, and children have been treated for some mental disorder in the past year. It is estimated that another six million patients have serious mental and emotional illnesses that are responsible for physical illness that requires treatment at general hospitals.

Facilities for treatment of these mental disorders are pitifully inadequate. Little more than half the necessary beds for good treatment in mental hospitals are available. The American Psychiatric Associa-

tion inspected 124 mental hospitals and could approve only eight and conditionally approve only thirty-one others.

In the forefront of the battle against diseased minds is the National Association for Mental Health, represented in this state by the Virginia Association for Mental Health. The Virginia and National Associations are conducting the annual campaign for members and funds this month. The Virginia Association needs mass support for its two-pronged attack consisting of education and service.

The generally unrecognized vastness of the mental illness toll places on all of us the responsibility of supporting the National and Virginia Association for Mental Health. We need these organizations and they need our support if we are to be mentally as well as physically healthy people.

Contributions may be mailed to MENTAL HEALTH, in care of your local Postmaster.

Abnormal Bleeding at the Menopause

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ANY consideration of abnormal bleeding at the menopause is primarily concerned with the question of genital malignancy. All the diagnostic procedures and general principles of the proper management of unusual vaginal bleeding in women during this phase of their lives are aimed at establishing a proper diagnosis. It seems almost trite to state, but is never the less applicable to this situation, that no treatment can be hoped to be successful without first establishing a definite reason for the abnormal bleeding. Mismanagement of bleeding conditions is probably never more serious than it is in patients at, or past the menopause.

The menopause is usually characterized by a gradual cessation of menses, with a concomitant diminution in the amount and duration of the menstrual flow. In an occasional instance the menstrual function will cease abruptly, but the former type of menopause is far more common. Flooding, or menorrhagia, at the time of the menses is not the rule in women during the menopause. This condition is definitely abnormal and requires investigation as to its cause. Inter-menstrual bleeding is even more significant during this period, than it is in women of lesser years, although it usually signifies the need for further study in any woman, regardless of age. Reported statistics for years have shown that women who experience prolonged or excessive bleeding in association with the menopause are more likely to develop endometrial carcinoma than those in whom there is no menometrorrhagia¹. Post menopausal bleeding of any type is a screaming danger signal that demands exhaustive study until a satisfactory explanation for its presence has been found. It has been estimated that at least four out of ten women who seek medical aid for vaginal bleeding one to two years after the menopause have a malignant tumor of the uterus². From this we can safely state that any vaginal bleeding of an unusual nature during the menopause, and any post menopausal bleeding, demands a complete study.

The benign conditions responsible for the unusual or abnormal bleeding at the menopause need little discussion here. Certain lesions of the vulva and vagina of a benign nature, such as vulvitides, vaginitides, traumatic lesions and benign tumors

will sometimes produce vaginal spotting. Vaginal bleeding will occasionally result from benign cervical lesions, such as erosions, eversion, and cervical polyps. However, we must bear in mind that the burden of the proof is on the physician, once the patient has presented herself, and he must satisfy himself that the patient is suffering from a benign condition and only that, through the use of vaginal smears, biopsies, and dilatation and curettage. We must always realize further, that benign and malignant conditions can, and do, exist conjointly.

Likewise benign conditions of the uterus, tubes, and ovaries, can produce unusual vaginal bleeding. However, the finding of endometrial carcinoma and fibroids of the uterus is by no means uncommon in menopausal women. Ovarian cysts of various types may also be coexistent with malignant conditions. We must likewise remember that menopausal women may suffer from the bleeding conditions of pregnancy, such as abortions, tubal pregnancies, etc. As with the preceding conditions, malignant lesions may also be associated with these causes of vaginal bleeding. Therefore it behooves us, as physicians, to be extremely careful not to overlook some serious condition in a menopausal woman, in whom we may have discovered some benign condition, that could be responsible for the unusual bleeding.

Probably one of the most abused agents in the management of the menopause, and particularly bleeding conditions associated with the menopause, is endocrine therapy. It is extremely dangerous to employ estrogens in the treatment of the menopause without the benefit of a diagnostic dilatation and curettage preceding and following its employment. The prolonged use of endocrine therapy (estrogens) will often lead to bizarre endometrial patterns and in many instances the therapeutic agent itself is responsible for unusual vaginal bleeding. Prolonged estrogen stimulation of the endometrium often results in a condition called papillary adenomatous hyperplasia. It has been stated that if this condition is discovered in a woman who has been on estrogen, the estrogen should be discontinued, and the D. & C. repeated in one month. If the hyperplasia is still present on the second D. & C., hysterectomy should be strongly considered. In any woman in the meno-

pause, who has not been on estrogen therapy, and in whom hyperplastic endometrium is discovered, a prophylactic hysterectomy is probably in order¹. Radium therapy is not indicated in menopausal women with hyperplastic endometrium, if indeed, it is indicated in any menopausal woman. There is a three times greater chance of women who have received low dosage irradiation developing endometrial carcinoma according to Peightal & Crawford¹.

The proper management of menopausal women with unusual vaginal bleeding entails a careful history and general physical examination. Pelvic examination should be thorough and should include speculum examination in order to completely visualize the upper vagina and cervix. Papanicolaou smears can be employed if facilities are readily available for their expert interpretation. In my opinion, however, negative Papanicolaou smears do *not* preclude the presence of genital malignancy. Cervical biopsy is mandatory for any suspicious lesion. This should be performed with a knife, and should consist of a cone biopsy at the squamo-columnar junction. Diagnostic dilatation and curettage should be performed at least once, and as often thereafter as conditions war-

rant, on every menopausal woman with unusual vaginal bleeding despite the discovery of any other lesion that might be considered responsible for the unusual vaginal bleeding. Where unusual endometrial patterns are discovered, repeat D. & C.'s are considered to be vitally necessary. Prophylactic hysterectomy should be employed whenever repeated dilatations and curettages reveal a continuance of bizzare endometrial patterns. Ovarian tumors of any size should be investigated through the use of laparotomy, and where the slightest suspicion of malignancy exists, bilateral salpingo-oophorectomy and total hysterectomy should be performed.

In general the crux of the situation, in so far as the management of abnormal menopausal bleeding is concerned, lies with measures aimed at establishing a proper diagnosis. Once the diagnosis has been established, appropriate treatment can be instituted. Reaching the correct diagnosis will usually readily follow the employment of the simple routine mentioned above with whatever other studies may evolve from the following of that routine. The blind employment of endocrine or any other therapy, is to be deplored in the management of women in the menopausal age group.

(1) Peightal, T. C. and Crawford, D. G. Jr., *Obst. and Gyn.* 5: 439, 1955.

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Controlled by ACTH

Further evidence of the value of corticotropin (ACTH) in treating a skin disease which usually results in death was reported in the March 24th *Journal of the American Medical Association*.

Dr. Richard B. Stoughton, Chicago, used the synthetic hormone for pemphigus vulgaris, a chronic and usually fatal disease of unknown origin. It causes blisters on the skin and involves the general health of the patient.

He gave corticotropin to nine patients for periods ranging from one and a half to four and a half years. All but one of the patients probably would have died of the disease if they had not received corticotropin. Corticotropin never failed to suppress the blister for-

mation, although it had no effect on the underlying cause of the disease. Side-effects from the hormone were "surprisingly" few.

All the patients had periods during which the disease process was quiet and required no corticotropin, but they also had flare-ups during which greatly increased doses were needed to control the disease. Generally, however, dosage needs were "remarkably constant," which means treatment except for occasional hospitalization can be continued on an outpatient basis indefinitely.

Adequate control of pemphigus vulgaris with corticotropin for indefinite periods of time seems entirely possible, Dr. Stoughton concluded.

Hypofibrinogenemia in Pregnancy

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HYPOFIBRINOGENEMIA or afibrinogenemia is a syndrome occurring in conjunction with several obstetrical complications. The complications themselves are not necessarily related, but their association with fibrinogen depletion allows them to be grouped together for purposes of discussion.

Depletion of fibrinogen may be so great that uncontrollable hemorrhage follows, hence it is important that this condition be recognized so that appropriate steps may be taken to correct the blood clotting defect.

In certain cases of abruptio placentae it is recognized that the maternal blood loses its ability to clot; or if clotting does occur, an unstable and ineffective clot is formed. A somewhat similar condition, slower in its onset, has been recognized in association with fetal death in utero where the pregnancy is retained. In both conditions the alteration of the clotting mechanism is associated with a widespread intravascular deposit of fibrin and associated decrease in fibrinogen. Other components of the clotting mechanism are often decreased.

There are three reactions in the formation of the blood clot. The first is the activation of thromboplastin. This is thought to occur by an interaction of the blood platelets with a plasma factor (anti-hemophilic globulin) which results in the liberation of thromboplastin. The thromboplastin transforms the prothrombin into thrombin. The third step is the formation of the fibrin clot by the action of the thrombin upon the fibrinogen.

Slow intravenous infusion of thromboplastin in dogs will produce widespread deposit of fibrin with a decrease in fibrinogen and ultimately a condition of incoagulable blood.

The decidua and placenta are rich in thromboplastin and may serve as a ready source of this important component of the clotting mechanism.

Steiner and Lushbaugh in describing the syndrome of amniotic embolism noted that the clotting mechanism of the blood was altered, for there was often a history of profuse bleeding and the postmortem blood was fluid.

Reid states that uncontaminated amniotic fluid contains a substance which behaves like thromboplastin. He believes that this is the origin of the

incoagulable blood in amniotic fluid embolism inasmuch as there is a decided decrease in fibrinogen particularly in the non fatal cases. Schneider does not agree with Reid on this point, stating that the intravascular deposits are not similar to those noted in fatal cases of abruptio placentae and dead fetus syndrome.

Schneider has proposed an interesting scheme as to the mechanism of the production of this sequence of events in abruptio placentae. He believes that the retroplacental hematoma increases because of the hydraulic pump-like mechanism of the arterial blood. This in time ruptures along the path of least resistance which is often into the maternal sinusoids and carries with it the thromboplastin from decidua and placental breakdown. In cases of separation of the margin of the placenta or in cases of placenta previa, the blood escapes from the hematoma through the cervix and vagina and does not result in the introduction of thromboplastin and blood into the maternal circulation.

In the case of the dead fetus syndrome he has suggested that a somewhat different situation is present in that some areas of the placenta become necrotic and undergo liquefaction. This placental debris rich in thromboplastin is introduced into the maternal circulation and initiates the mechanism just described.

We have encountered two patients whose case histories illustrate some of the points just mentioned.

The first patient is a 24 year old white, married female, pregnant for the fourth time. The first two pregnancies were delivered at term. The third pregnancy was complicated by premature separation of placenta at the 24th week of gestation with death of the fetus.

She reported for prenatal care at the third month of her fourth pregnancy. At this time all findings were normal except that she had an anti Rh antibody titer of 1:64. Repeated determinations showed no change in the antibody titer during this pregnancy. At 24 weeks gestation she developed signs of toxemia with edema, albuminuria and hypertension. With rest, sedation and restriction of sodium these signs decreased and the findings became normal. At 28 weeks she reported that the fetus had not been

felt to move for several days. The fetal heart was not audible at this time. At 36 weeks she noted spontaneous onset of purpuric areas on the arms and legs. Blood studies done at this time showed a marked reduction in fibrinogen, (98 mg. %), with a reduction in platelet count and a mild degree of anemia. On the following day the fibrinogen level had fallen further to 35 mg. %. Blood was obtained. We had secured fibrinogen for intravenous use. Labor was induced by artificial rupture of membranes. Fibrinogen and blood were given intravenously during labor and delivery. After a four hour labor she was delivered of a macerated fetus. Bleeding was profuse and the blood failed to clot, so further fibrinogen was administered. One hour after delivery, blood drawn into a test tube clotted in 10 minutes. Two hours after delivery the patient had a hemorrhage of about 800 cc. of blood with associated uterine atony; this responded to intravenous oxytocin. The blood contained a few clots. Four hours after delivery the clotting time of the blood in the test tube was reduced to five minutes. On the morning after delivery the blood clotting time was four minutes. Fibrinogen had risen from a low of 35 mg. % on the day of delivery to 400 mg. % or a normal level, 48 hours after delivery. Her convalescence from this point was uneventful.

The second patient was a 32 year old, white, married female, pregnant for the second time, who was admitted to the hospital for elective induction of labor at term. Her antepartum course was entirely uneventful. Labor was induced by artificial rupture of membranes and after a first stage of five hours, she was moved to the delivery room. After being placed on the delivery table, she became markedly cyanotic, but the respiratory rate was not depressed nor was there any evidence of obstruction to the nose and throat. She was given oxygen and an oropharyngeal airway was inserted but the cyanosis increased. Her blood pressure was found to be 80/40 and a few minutes later her blood pressure was unobtainable. At this time bleeding was noted from the gums and from the nose. Intravenous fluid was begun and the blood drawn for cross matching failed to clot. Fibrinogen was 166 mg. % at this time. Bleeding continued from the nose, the mouth and beneath the skin at sites of all the venapunctures. Forty-five minutes later her blood pressure had risen to 120/60 but she was still deeply cyanotic in spite of deep respirations and an unobstructed airway. Fibrinogen was secured and was administered with whole blood. A stillborn female infant was delivered by outlet forceps. The placenta was removed

and the uterus was explored manually, and found to be intact. Following the delivery the uterus was quite soft and she bled steadily in spite of continuous manual compression of the uterine fundus. One thousand cc. of blood was measured in the blood loss. This blood showed no clot formation. She had already received three grams of fibrinogen, and another three grams of fibrinogen was given after delivery with 500 cc. of freshly drawn blood.

Even while receiving blood, her blood pressure could not be maintained above 80/60 at this time. Two hours after delivery another freshly drawn pint of blood was given and by the addition of norepinephrine to the intravenous infusion, the blood pressure could be maintained. At this time the idea that she might have intracranial bleeding prompted the fundoscopic examination but no abnormalities were found. Four hours after the onset of her symptoms she began to awaken, and the airway was removed from the mouth. Her blood pressure was unstable and would fall to 85 millimeters of mercury systolic even while receiving blood. Four hours after delivery there was no vaginal bleeding. The uterus was firm and the blood showed evidence of clotting in the test tube. Her blood pressure continued to be quite unstable and fell to levels of 80 unless the norepinephrine was maintained. At this time she was started on a program of adrenal cortical replacement. Twelve hours after delivery the norepinephrine was discontinued and the patient was alert without any gross evidence of hemorrhage or thrombosis intracranially. Her hemoglobin was 56 percent, the fibrinogen was found to be 353 mg.%. Her condition remained good except for symptoms of anemia and some mental depression associated with the loss of her infant. Adrenal cortical hormones were slowly decreased over a period of several days, and she was discharged on the 9th postpartum day. Subsequent examinations have been normal.

Treatment of the coagulation defect should be directed toward replacement of fibrinogen. A preparation of fibrinogen is now available but is not yet widely distributed. The use of fresh blood is valuable. Bank blood is of little use in attempts to correct the defective clotting. Lyophilized plasma has much to recommend it in the treatment of this syndrome. The simple clot observation test will serve as a bedside guide to therapy. The critical level of fibrinogen is near 100 mg. %. Below this level clotting may not take place or if a clot does form lysis of the clot may follow. It is thought by most authorities that the error of coagulation should be corrected before attempts to terminate the preg-

nancy are made. If this approach is followed, vaginal delivery is often feasible and hysterectomy in an attempt to control bleeding will not be needed.

SUMMARY

Defective coagulation of maternal blood is known to occur as a result of fibrinogen depletion secondary to intravascular fibrin deposition in several unrelated obstetrical complications. The mechanism of this reaction is discussed and the therapy is outlined.

Two illustrative cases are cited.

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Dermatitis

It apparently isn't possible to put out a product for use on the skin that won't cause somebody, somewhere, to break out in a rash. A new product might be used safely by two million people but not by the one who is sensitive to something in it. Doctors treating hard-to-explain skin troubles often have a hard time finding a solution unless they can discover the individual's particular sensitivity. The list of possible causes of sensitivity is long.

Two more items—an antiseptic soap and facial tissues—were added to the list by reports in the April 7th Journal of the American Medical Association.

The report by Irvin H. Blank, Ph.D., of the Harvard Medical School dermatological research laboratories, Boston, said that ordinary soap generally won't bother anybody. But excessive use might be partly responsible for skin trouble or aggravate a preexisting skin condition among a few people. And some rare individuals have been found to be sensitive to dyes or perfumes in otherwise harmless soap. Dr. Blank said he has now found this is also true of a soap containing a chemical intended to make it antiseptic.

In the other report, Drs. Samuel M. Peck and

Laurence L. Palitz, New York, said so-called "wet strength" facial tissues, which have been treated to make them more moisture resistant, might bother some people.

Dr. Blank said the presence of a chemical (tetramethylthiuram disulfide) in an antiseptic soap causes rashes among persons already sensitive to the chemical from contact with rubber products containing it. However, few other persons appear to be sensitive to the chemical in the soap. In a 17-month period only about one case of dermatitis for every two million bars of soap sold was reported to the manufacturer, who has kept close watch on the situation. There appears to be no more allergic reactions to the soap among ordinary users than there were before the addition of the chemical.

The New York physicians found that three of 50 patients who underwent various tests were allergic to synthetic resins, agents used to make "wet-strength" facial tissues more moisture resistant. There were no reactions among the patients to tissues without the resins.

Tissues containing these resins may be considered as a cause of dermatitis, especially in the presence of breaks in the skin, such as those following a cold.

Abnormal Uterine Bleeding in the First and Second Trimesters of Pregnancy

ARTHUR L. WILSON, M.D.

Winchester, Virginia

THE FIRST GREAT category of abnormal bleeding in pregnancy is that of *disturbance of the normal relationship of the ovum and its immediate maternal environment*.

Abortion, or miscarriage, meaning loss of the fetus before viability, occurs in about one third of all pregnancies, with the *greatest incidence of such loss in those women with the least or no prenatal care*. Here we must distinguish between threatened abortion, imminent or inevitable abortion, incomplete abortion, missed abortion, or other cause for bleeding, primarily to attempt to save the threatened abortion or to promptly complete the incomplete abortion or other type of fetal loss in the interests of maternal welfare. There is no substitute for prompt and careful history, general physical examination, speculum examination and gentle and judiciously timed bimanual examination in order to make the proper differential diagnosis and to institute immediate proper management accordingly. It would seem, from our personal experience and extensive review of current literature, that regardless of which mode of treatment other than temporary rest, sedation, and reassurance to the patient concerning the diagnosis and prognosis, *two-thirds of all threatened abortions proceed to viability* anyhow. Our personal experience implies that between 20 and 30 percent of unregistered patients first seen with bleeding suggestive of abortion lose the fetus, while on the other hand, less than 5 percent of our patients that register early and get started promptly on a satisfactory prenatal care schedule terminate by fetal loss. There is no question but that socioeconomic-environmental-educational status plays a large role in the problem of abortion.

There is also a kind of "normal" bleeding fairly often seen in the first trimester of pregnancy. Speert and Guttmacher observed that of 225 consecutive patients with bleeding who did *not* abort, vaginal bleeding was noted in 8 percent on or before the 40th day in the absence of pain or cervical or other lesions and this was interpreted as *physiological implantation response*. Such bleeding was three

times as frequent in multiparas as in primigravidas. Macroscopic bleeding associated with implantation *may simulate menstrual flow*, but usually is less in amount and duration. This quite logically explains the not infrequent disparity between calculated duration of pregnancy and a disproportionately large fetus, e.g. the 8 pound 8 months baby we sometimes encounter.

The differential diagnosis between *physiologic* (implantation) bleeding and *pathologic* (threatened abortion or other) bleeding is clinically economically and psychologically important to the patient and her family as well as to her doctor. No treatment is necessary for the first and there is no consistently successful specific treatment for the second except generally prophylactic. (On the other hand if endocrine therapy is successful in converting anovulatory cycles with ensuing pregnancy in a sterility problem, then it seems logical to assume that such a pregnancy should also receive supporting endocrine therapy.)

Etiology of abortion: In general all causes lead to *deranged decidual-placental relationship*, especially of vascular integrity and to hypermotility of the uterine musculature, and thence to decidual-retroplacental hemorrhage and expulsion of part or all of the products of conception.

I. *Systemic maternal causes, having to do with nutritional and general state of health include:*

1. Anemia, avitaminosis, (A, D, B group, C, K, and P), hypoproteinemia, liver deficiencies, subclinical hypothyroidism and other hormone deficiencies.
2. Vascular and renal deficiencies of hypertensive-cardio-vascular and the chronic renal diseases.
3. Acute and chronic infections and febrile diseases of all types.
4. Other chronic degenerative and/or debilitating diseases.
5. The role of emotional stress and physical fatigue, especially in habitual abortion, must not be overlooked.

All of these factors require immediate supportive if not curative therapy if we are to increase the fetal salvage rate.

II. *Local maternal pelvic organ abnormalities:*

1. *Anomalies of uterus*—bicornuate, septate, double uterus, rudimentary horn, etc., predisposing to poor implantation and/or support of the ovum.
2. *Retroflexion and retroversion* of uterus can be said to be a contributing cause of abortion in association with deranged pelvic-uterine vascular balance.
3. *Pelvic tumors*, especially uterine myomata of the submucous-intramural variety may cause crowding and irregularity of the ovular space, decidual vascular deficiencies, uterine dyskinesia, and hence abortion.
4. *The incompetent cervix* is often overlooked as a major factor in repeated abortions or premature deliveries. Here there is gross patency (patulousness) and loss of fibromuscular tone of the cervical canal, internal os and even the lower segment of the uterus, associated with previous lacerations from delivery, careless dilatation of the cervix (the Goodall dilator is mentioned only to be condemned), descensus or prolapse and subinvolution of the uterus. Such problems can be readily managed surgically between pregnancies.

III. *Anomalies of ovular development:* Here we are dealing with the "defective ovum" or "poor germ plasm" theories of Streeter, Hertig, and Mall, wherein occurs fetal agenesis, monstrosities, etc. In this group the fetus dies first so we may assume, then trophoblastic failure, bleeding, and abortion takes place.

We must also consider here defects or deficiencies and accidents of relationship of placenta-membranes-decidua and of the umbilical cord. Atherosclerotic and fibrinous infarcts, or so-called premature senility of the placenta, reduce the efficiency of the placenta as the life-sustaining oxygenating and nutritional membrane for the fetus, hence often fetal death literally by starvation. Certain anomalies or defects of the membranes and cord must not be forgotten, such as velamentous insertion of the cord, excess torsion, knots in the cord, abnormally long or short cords, and hematomas of the cord.

Premature separation of the normally implanted or *placenta previa* must be mentioned particularly to emphasize the same connotations regarding hem-

orrhage and maternal danger and fetal loss in the fourth to sixth months, as in the seventh to ninth months, though not as often accurately diagnosed in the earlier as in the later months. This phase of obstetrics alone is worthy of hours of discussion of course, but is not the object of this paper.

Again the renewed recognition of the old problem of *afibrinogenemia*, its diagnosis and specific therapy, is mentioned for the sake of completeness. We are indebted to Dr. Edwin Rucker for his excellent review of this subject on this panel.

In contrast to the "defective ovum" theory already noted, Javert at Cornell has done extensive work showing that a very frequent cause of abortion is the primary defect in the decidual-placenta relationship of *decidual hemorrhage*, wherein the *hemorrhage occurs first* causing "starvation of the villi", then follows death of the fetus before, during, or immediately after the spontaneous abortion. Javert found microscopic proof in 61 percent of 1,500 spontaneous abortion specimens, and in 54 percent of specimens from habitual abortion cases. Worthy of note was his finding of an incidence of *low maternal plasma vitamin C* of 66 percent in decidual hemorrhage cases. He postulates that the onset of decidual hemorrhage may be precipitated by decidual engorgement associated with hyperemia of the female reproduction tract upon sexual excitement, and he infers in his "*stress hysterosthenia hypothesis*" that increased secretion of epinephrine under stress may (via the pituitary) increase oxytocic output sufficiently to start premature labor in certain predisposed individuals. He forbids completely sex-life in pregnancy if the patient is an habitual aborter.

Hydatidiform mole with its gradations to malignant mole and chorion epithelioma as a cause of abnormal bleeding are included under anomalies of ovular development. Here we have complete agenesis of the fetus, plus aberrant villous and trophoblastic development.

Ectopic pregnancy produces abnormal decidual bleeding, the significance of which has already been well covered by Dr. Brock Jones in his excellent paper early this morning. We were pleased to note his emphasis on both the history and the physical examination for differential diagnosis.

Accidental indirect trauma is a rare cause for abortion. As far as directly induced or "*criminal abortions*" are actually concerned, heaven only knows how many are actually attempted, in how many ways, or how many are successful, and those few patients who will admit submitting to or self-at-

tempting such dangerous procedures provide only meager material to a statistician.

The best ways in general of preventing abortions are first, early and thorough prenatal care, with immediate attention to any concurrent or intercurrent illness or deficiency. (This makes a conscientious obstetrician necessarily an alert general practitioner of medicine, and vice-versa.) Secondly, in those with a history of abortion, one must attempt to correct any detectable defects in the individual and her pelvis, and also her husband at times, and then carry out careful prophylaxis during the pregnancy—i.e., proper treatment here starts before conception, with particular emphasis on general nutritional and vitamin and mineral support, interdiction of coitus, hormone therapy in adequate amounts only where there is a proven deficit, and frequently of paramount importance, adequate psychological support.

II. The *second general group* of sources of uterine bleeding in pregnancy are those due to *lesions of the cervix*.

Cervical polyps, endo- or exocervical are common and usually produce only mild bleeding. They are readily removed as biopsies, with particular attention to the base or pedicle area.

Erosions and chronic cervicitis, usually existing prior to conception, may bleed lightly but frequently. The older and more parous the patient, the more acutely indicated is ruling out *carcinoma of the cervix*. We should take smears and biopsies, at least biopsies, preferably in a hospital where facilities are readily available for control of excess bleeding from the hyperemic cervix. It is a matter of quite common agreement that when carcinoma of the cervix is discovered that we treat the carcinoma and disregard the pregnancy except perhaps in the last trimester when immediate operation (Caesarean) delivery may facilitate treatment of the cervical lesion. Carcinoma of the cervix in pregnancy is relatively rare with an incidence of from 0.05 to 0.5 percent according to what clinic or center is reporting, and

the method of diagnosis. Smears alone should not be relied upon for diagnosis of carcinoma in pregnancy, at least other than by those few with the greatest experience in this method, and even then should be confirmed by tissue section.

In the treatment of any lesion of the cervix in pregnancy, extensive or deep cauterization or coagulation should be avoided because of the danger first of opening larger vessels and later of fibrosis, stenosis, and cervical dystocia. Satisfactory results most of the time are obtained with the mild caustics or astringents such as Negatan, Monsel's solution, 10% silver nitrate (*not* 50% or solid silver nitrate). Frequently a simple gelfoam pack is efficient in controlling ooze from such lesions or from the result of surgical excision of same.

Condylomata and *verrucae* can be removed from the portio of the cervix, and some disappear spontaneously anyhow with use of simple conservative hygiene.

Decidual reaction, a localized hypertrophy and hyperemia of epithelial and/or stromal tissues in pregnancy, is quite common anywhere within or upon the pelvic organs, and may be seen frequently at the external os of the cervix and sometimes in the portio and in the vaginal vault. Bleeding from such "lesions" is by diapedesis following engorgement and is usually quite mild and self limited.

Again we wish to emphasize that direct vision with a good light and proper use of the vaginal speculum is essential to the differential diagnosis of abnormal bleeding.

By way of summary with a moral: *Good, complete, and early prenatal care with immediate attention to any suspect bleeding* in pregnancy, with a conscientious attempt to diagnose and alleviate the cause, will increase fetal salvage and decrease maternal morbidity and mortality.

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Manual Exploration of the Uterus Following Delivery

RUFUS P. ELLETT, Jr., M.D.
Roanoke, Virginia

EXPLORATION of the uterus has been a questionably accepted obstetrical procedure for many years. Our forefathers have condemned this procedure and it was only mentioned as a passing fancy and used only as a last resort when the patient was on her death bed. As early as 1932, Eastman¹ quotes Gheorghin, in Europe, who stated that manual exploration of the uterus was a harmless procedure. This was done before the time of antibiotics. On 6,000 patients, the uterus was explored by hand with no mortality and a morbidity of 3-4 per cent. From his viewpoint, this method of examining the intrauterine cavity was harmless and could be carried out with relative safety. However, in 1945, Stander stated that the danger of infection was greater in this procedure than any other obstetrical manipulation. Other authors have made many conflicting statements concerning the pros and cons of manual exploration of the uterus in respect to morbidity, mortality, infection, and hemorrhage. It all depended on which school one followed as to the advisability of exploring the uterus immediately postpartum or whether one waited for severe hemorrhage before resorting to the intrauterine examination.

It has been considered an acceptable and good obstetrical procedure to manually explore the uterus after version and extraction, difficult forceps delivery, manual removal of the placenta, all types of fetal destructive operations, postpartum hemorrhage from any cause, vaginal delivery after a previous Caesarean section, and many cases where the uterus is suspected of being ruptured. I feel that everyone agrees that the uterus should be explored following the above stated conditions and there are many other conditions that warrant investigation, however, they remain in the questionable group.

Hoffman² feels very enthusiastic and recommends the routine manual removal of the placenta. He reported on 977 cases where this procedure was done on vaginal deliveries regardless of type of delivery, complications of pregnancy, duration and type of labor, or anaesthesia. His incidence of postpartum hemorrhage of 1.83% and puerperal morbidity of 2.25% is considered low. Hoffman states and quote, "The procedure has allowed the obstetrician to con-

trol the third stage of labor, to assure himself that the placenta and membranes have been removed completely, and to determine the presence of unsuspected intrauterine pathology. The immediate manual removal of the placenta should reduce the previously high morbidity and mortality rate which has been associated with this procedure in the past, when it was delayed until the patient was in a serious condition."

Hawkins³ reported a group of 3,255 patients who had uterine exploration and only one returned to the hospital for vaginal bleeding. In a control group of 1,098 cases, there were six patients who returned to the hospital with bleeding and all of these had retained placental tissue. Therefore, he concluded that routine exploration of the uterus reduced the number of patients who returned to the hospital for bleeding from retained placenta, afforded better pelvic evaluation, did not appreciably increase morbidity, and appears safe for all physicians to use.

Duckman and Dennen⁴ reported 83 manual explorations of the uterus in about 700 deliveries, and only one patient in this group hemorrhaged enough to require hospitalization. They compared their group with another group of 9,783 deliveries at Brooklyn Hospital where 23 patients were readmitted to the hospital for excessive bleeding.

From approximately 1,200 deliveries in the past five years by my associate, Dr. David Sherrill, and myself, three patients bled enough to require a D. & C. Two patients hemorrhaged enough during their hospital convalescent period to require a D. & C. before discharge from the hospital. The pathology report in both cases revealed decidua but no gross placental tissue. The third case which occurred about two months ago was readmitted to the hospital for a D. & C. The pathology report confirmed placental fragments. Our series compared favorably with the Brooklyn Hospital group, approximately one patient in 400 had vaginal hemorrhage severe enough to require a D. & C. A routine manual exploration of the uterus was not performed in our patients.

I do not advocate or recommend routine manual

exploration of the uterus following delivery; however, the procedure is immediately performed on any patient who proves to be complicated in the least manner. In my hands, the complications usually demanding an investigation of the intrauterine cavity are:

1. Postpartum hemorrhage from any cause.
2. Doubtful retained placental or membrane fragments.
3. Traumatic deliveries.
4. Mid-forceps deliveries.
5. Suspected rupture of the uterus.
6. Suspected anomalies of the uterus—such as bicornuate uteri or subseptate uteri.
7. Leiomyomata of the uterus.
8. Manual removal of the placenta.
9. Patients who are habitual aborters.
10. Version and extraction.
11. Atonic uteri.
12. Repeated premature births.
13. Retained or adherent placenta.
14. Post Caesarean section.
15. Prolonged labor.
16. Multiple pregnancies.
17. Cervical pregnancy (one case.)
18. Vaginal deliveries following a previous Caesarian section.
19. Intuition (things just do not appear to be right.)

Most articles that have been reviewed suggest and recommend that antibiotics are not necessary following a manual intrauterine examination. I am not an advocate of the injudicious use of antibiotics; however, I use antibiotics in adequate quantities following a manual exploration of the postpartum

uterus. Maybe I can sleep a little better after retiring at night.

Even though I do not recommend routine intrauterine examinations following delivery. I strongly advocate that one should be familiar with the technique of manual exploration of the uterine cavity and one should not hesitate or prolong the examination when the indication is present. If one waits too long, especially in hemorrhage, the results may be disastrous.

It is realized that this subject is of a very controversial nature and we will have numerous individuals on both sides of the fence arguing each pro and con in his favor. The reports in the literature have been favorable to routinely explore the uterus following delivery; however, these examinations have been performed by specialists in the field of Obstetrics and Gynecology. If every Tom, Dick, and Harry begins this routine procedure, I feel sure that the morbidity and even the mortality rate will certainly increase. The lack of knowledge and experience in these examinations will prove a hazard and the unreported complications will be present and some of us will review an occasional mortality report.

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920 South Jefferson Street
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Ford Foundation Grants.

A \$10,000,000 program of grants to the National Fund for Medical Education has been announced by H. Rowan Gaither, Jr., president of The Ford Foundation. The appropriation is intended to assist the National Fund for Medical Education in its efforts to strengthen the financial support for medical schools throughout the United States, both public and private, and to develop new sources of such support.

Grants from the \$10,000,000 appropriation will be paid to the National Fund on a matching scale in a program that could last up to 10 years but might be accelerated to completion in five years, depending

upon the rate at which the National Fund develops additional support for medical education. The maximum grant in any one year would be \$2,000,000.

The sliding formula by which The Ford Foundation will match the National Fund's receipts is designed to give particular encouragement in the early years of the plan to increasing the contributions of existing donors and to attracting new donors.

All contributions to the National Fund in excess of the 1955 total would be matched dollar for dollar, subject to the annual maximum of \$2,000,000.

MACK I. SHANHOLTZ, M.D.
State Health Commissioner of Virginia

“Meningitis, Other”

The Public Health Service has changed the reporting of “Meningitis—Type” to two groups, “Meningococcal Infections” and “Meningitis, Other.” Under the latter heading effort is made to identify the type of the agent producing meningitis.

Meningitis, as is well known, is inflammation of the meninges which occurs as a result of the invasion of the central nervous system or its coverings by bacteria, viruses, mycosis, spirochetes, or parasites. The clinical manifestations will depend on whether the infection is primarily basal or cortical in its distribution. Affecting the manifestations will also be the presence of associated lesions of the brain and spinal cord and signs of infection in other parts of the body.

Among the causes of “Meningitis, Other” the tubercle bacillus, the influenza bacillus, the pneumococcus, the hemolytic streptococcus, and the staphylococcus are the most usual. In addition, the non-hemolytic streptococci, enterococci, the colon bacillus, especially in infants and children, and the pyocyaneus bacillus, which may invade the meninges after lumbar puncture for any cause. Occasional causes of “Meningitis, Other” may be *Aerobacter*, *Proteus*, *Alcaligenes faecalis*, the *Brucella*, the *Pasteurella* of tularemia, the gonococcus, and the *Salmonella*.

A number of viral infections cause meningitis but most of them produce signs of encephalitis or myelitis as well. The virus of mumps and that of measles, the virus of poliomyelitis, and the virus of acute lymphocytic choriomeningitis may cause all the signs and symptoms of meningitis. These must be considered when the patient apparently has a form of non-bacterial meningitis.

The mycoses producing actinomycosis, blastomycosis, coccidioidomycosis, cryptococcosis, histoplasmosis, and nocardiosis are among the most frequent causing meningitis.

The micro-organisms most commonly producing

spirochetal meningitis are the *Treponema pallidum* of syphilis, and the *Leptospira icterohaemorrhagica* of Weil's disease.

The parasitic infection that most commonly involves the meninges is the *Trichinella spiralis* that produces trichinosis.

Pathways of infection of the meninges may be through the blood stream or through direct extension of organisms from the middle ear, the mastoid, paranasal sinuses, from infections about the nose, lips, and eyelids, from skull fractures, from congenital dermal sinuses, through congenital malformations as spina bifida, after lumbar puncture, following operations on the nose, air injections of the ventricles, operations on the spine or brain. A knowledge of the pathway is important in both diagnosis and treatment.

From the public health standpoint, the etiologic diagnosis is interesting, contributes to statistical records, and is important in pointing to probable spread of infection. From the clinical standpoint, it is essential that the etiologic diagnosis be made so that proper treatment can be started early, frequently by administering one of the antibiotic drugs.

MONTHLY REPORT OF BUREAU OF
COMMUNICABLE DISEASES

	March 1956	March 1955	Jan.- March 1956	Jan.- March 1955
Brucellosis	4	2	5	6
Diphtheria	5	5	15	8
Infec. Hepatitis	54	127	166	474
Measles	4176	497	6708	1269
Meningococcal Infections	8	14	26	32
Meningitis (Other)	11	—	26	—
Poliomyelitis	2	2	4	7
Rabies (In Animals)	53	47	126	157
Rocky Mt. Spotted Fever	1	0	3	2
Streptococcal Infections (Incl. scarlet fever)	881	947	1968	2792
Tularemia	2	1	4	5
Typhoid Fever	1	3	2	13

JOSEPH E. BARRETT, M.D.
*Commissioner, Department Mental Hygiene
 and Hospitals*

Who Are the Patients in Our Mental Hospitals?

Note: This is the fourth in a series of articles on the types of patients resident in the Mental Hospitals in Virginia. These articles are prepared by the Department's Statistician as information about the different aspects of the hospital population. Charts, which show a graphic picture of the various characteristics of these patients, are also included. It is hoped this will be valuable information to the medical profession in Virginia.

JOSEPH E. BARRETT, M.D.
Commissioner

The hospital administration is quite concerned over the large percentage of aged patients in the hospitals. Previous articles have shown how long many of the patients have been on the records and that the functional psychoses are the diagnostic groups that remain the longest, building up the aged. Of course, there are also the diseases of the senium, but these are already aged when admitted.

The schizophrenics, who have a median age of about 30 on admission, had as of June 30, 1955, 13.6% of their population of 4,062 over 65 years of age, 16.6%, 55 to 64 years of age, 24.2%, 45 to 54 years of age and 25.8%, 35 to 45 years of age, thus

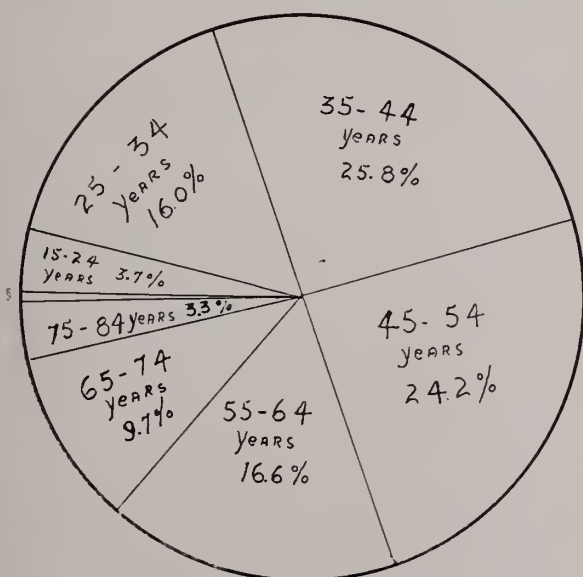


CHART NO. I—Percentage distribution of age groups of patients diagnosed as schizophrenia resident in Virginia State Mental Hospitals as of June 30, 1955. § Under 15 years—0.1%

Contributed by EDNA M. LANTZ, Statistician, Department Mental Hygiene and Hospitals.

80.2% are above the median age of admission. (Chart No. I) As there is a small number admitted each year that are over 45 years of age, the 54.4% over 45 years of age in residence on June 30, 1955, are a build up of admissions for past years.

The manic-depressives, who have a median age on admission of about 37 years, had as of June 30, 1955, 32.7% of their population of 1,704 patients over 65 years of age, 23.7%, 55 to 64 years of age, 22.8%, 45 to 54 years of age, thus a little over 80.0% are above the median age of admission. (Chart No. II) This diagnostic group is also an-

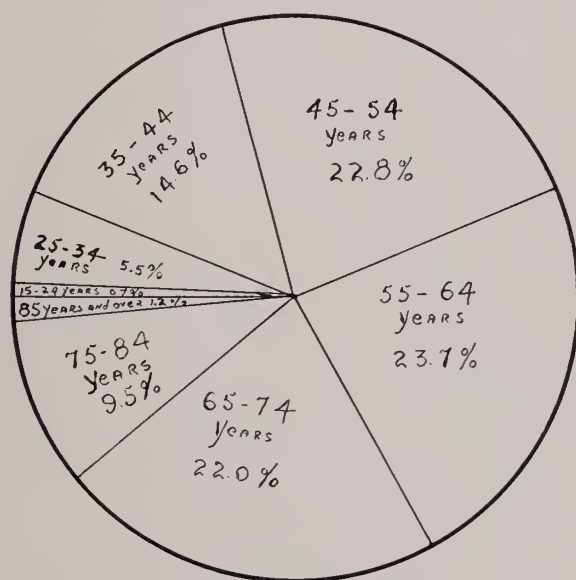


CHART NO. II—Percentage distribution of age groups of patients diagnosed as manic-depressive resident in Virginia State Mental Hospitals as of June 30, 1955.

other age build up group though not as large a group as the schizophrenics.

The median age of admissions for the senile-arteriosclerotic groups is about 73. Of the majority of the patients resident in hospital on June 30, 1955, 75.7% were in the age group of 65 to 84, which bears out the fact that these are mostly recent admissions. (Chart No. III)

To emphasize the fact that the problem of the aging patient in the hospitals is complicated by the build up of the long term functional psychoses group, the hospitals had 1,323 patients 65 years of age

and over who had been on the records 10 years or longer or 11.7% of the total population. Of this group, the functional group comprised 72.4% and the senile-arteriosclerotic group only 7.8%. (Chart No. IV)

These four articles have endeavored to show by word and graphs two of the problems that affect hospital administration—the long term patient and

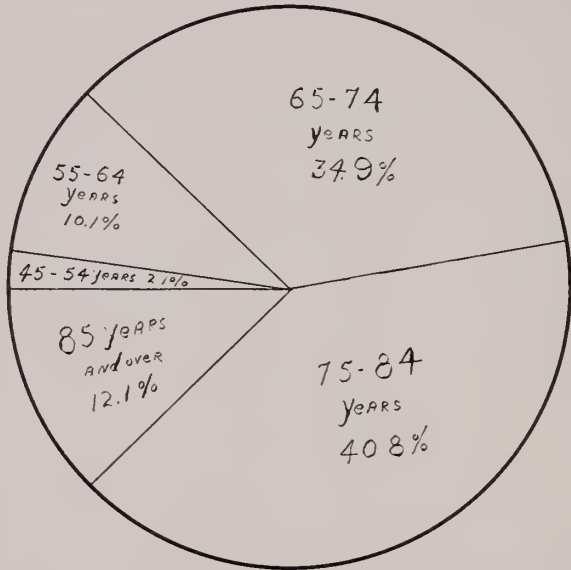


CHART NO. III—Percentage distribution of age groups of patients diagnosed in the senile arteriosclerotic group resident in Virginia State Mental Hospitals as of June 30, 1955.

the aging patient. In recent years new treatments have been developed for mental illness and these may in time decrease the large percentage of patients in long term residence. However, there will always be some patients who will not respond sufficiently to treatment to be able to live outside of the hospital setting.

The financial expenditures for caring for the long term patients are large—for their personal needs, personnel to care for them and facilities to house them. It is true that it takes money to have sufficient personnel and treatment facilities (including drugs,

etc.) to give maximum treatment to new admissions, but, if such treatment is effective, how much better to spend more for a shorter stay in the hospital than the expenses for years of hospital care.

Many of the long term patients resident in the hospitals now might not be there if, at the time of their admission, there had been sufficient trained personnel and methods of effective treatment used,

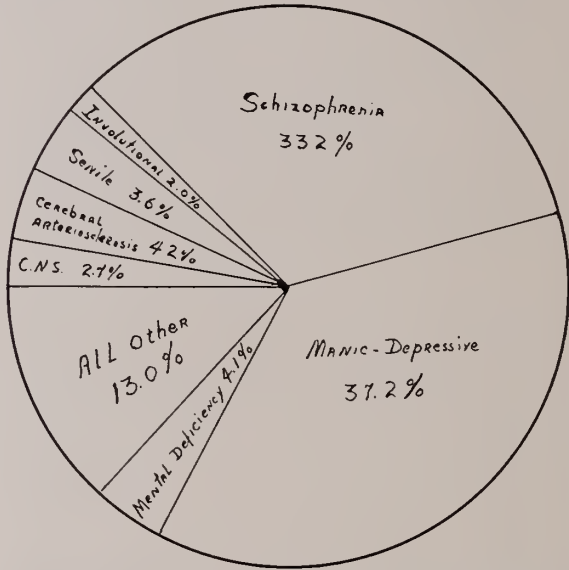


CHART NO. IV—Percentage distribution of diagnoses of patients 65 years of age and over who have been on the records of Virginia State Mental Hospitals 10 years or longer on June 30, 1955.

that would have been instrumental in their leaving the hospital as persons who could live in their homes and communities. However, it will be a period of time before the valuation of the new treatments can be shown from a statistical standpoint and compared to the past build up of patients in the hospitals.

This concludes the series on hospital residents, but, in order to complete the picture of hospital patients, there will follow articles on admissions and discharges.

Current Currents

MANY BILLS of interest to the medical profession were considered by the 1956 session of the General Assembly. Following is a brief roundup of bills passed by both Houses:

Senate Bills:

- #57: This bill creates the Virginia Treatment Center for Children. It provides the conditions for admission or transfer of emotionally disturbed or mentally ill children. This Center is to be located within 15 miles of the City of Richmond.
- #59: This bill amends Section 37-75 of the Virginia Code by increasing the fee for physicians serving on lunacy commissions to \$10.
- #60: This bill amends Section 54-278, which relates to division of fees between physicians and surgeons. The amendment provides that "nothing in this chapter shall be construed as prohibiting the members of any regularly organized partnership or group of duly licensed practitioners of any branch or branches of the healing arts from making any division of their total fees among themselves, or from using such fees to defray their joint operating costs, as they may determine . . ."
- #72: A bill relating to communications between physicians and patients. Physician not required to disclose any "information acquired in attending a patient in a professional capacity if such information was necessary to enable him to furnish medical care to the patient unless the physical or mental condition of the patient is at issue . . . provided, however, that the judge of any court of record may . . . compel disclosure of such information in any case where in his opinion disclosure of same is necessary to the proper administration of justice . . ."
- #187: This bill provides that no person shall be appointed more than once to succeed himself as a member of the State Board of Health. Appointments to fill vacancies shall not be considered in determining eligibility.
- #215: A bill to permit local health officers to request persons having or suspected of having tuberculosis to be examined for the purpose of ascertaining the presence or absence of the disease and determining the degree of communicability, if any. Any suspect who refuses to comply within a designated time limit may be quarantined or isolated. Decision to quarantine may be appealed within 15 days to State Health Commissioner.

Senate Joint Resolution:

- #19: Provides for a VALC Study of the question of employment of physicians by hospitals and institutions, and the relationship between physicians, hospitals, and institutions furnishing medical and hospital care to the public.

House Bill:

- #14: This bill provides that .15 per cent content of alcohol in the blood of a defendant is prima facie evidence that he is under the influence of intoxicants while driving an automobile.

Anyone desiring additional details on any bill considered by the General Assembly may contact the State Office, 1105 West Franklin Street, Richmond.

QUESTIONS concerning the professional liability insurance program of The Medical Society of Virginia continue to be received. Two of them are answered below:

Q: Does the professional liability insurance program of The Medical Society of Virginia encourage the existence of insurance committees in the various component societies?

A: The Insurance Committee of The Medical Society of Virginia and the Saint Paul-Mercury Indemnity Company believe that component insurance committees are absolutely necessary if the program is to achieve maximum results. The success of the program will depend, in large part, upon the cooperation of the component societies. Through the component insurance committees will come the education and supervision so vital at the local level.

Q: How many years experience in a given area does the insurance company require before it will consider adjustment of rates?

A: Although the Saint Paul Company has stated that the experience will be reviewed at the end of an 18 months period, it is only fair to point out that this is a rather short period of time in which to expect definite results. It is generally agreed that it usually takes close to three years to develop the experience necessary for rate revision. However, the Insurance Committee would assure you that an adjustment of premium rates will be accomplished as soon as possible.

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The Medical Society of Virginia . . .

Congress on Industrial Health.

The Sixteenth Annual Congress on Industrial Health was held at the Sheraton-Cadillac Hotel, Detroit, January 23-24, 1956.

Dr. Boyd H. Payne, representing The Medical Society of Virginia, reports:

William P. Shepard, who presided, stated the purpose of the meeting was "to call together a conclave of people interested in health and welfare of people in occupations"—and that this meeting and organization was set up under the A. M. A. Council of the Board of Trustees to help the general practitioners.

President-elect Arch Walls, of the Michigan State Medical Society, welcomed the group to the city and stated that since 94% of the doctors in the United States did some form of industrial practice they needed more education concerning the problems of industry.

The theme for the morning session concerned a panel, the topic being Occupational Medicine in Industrial Relations, with L. Clayton Hill as chairman. He stated this was a non-medical medical meeting whose purpose it was to stimulate questions so that relations in general would be on a higher level. Dr. N. J. Roberts stated that what determines the attitudes of the employee to the Company was the Company's attitude toward him. He said the individual's attitude toward the company may be much influenced by his feeling toward the medical department. Management, therefore, has a good chance, within the framework of the medical department, to show its personal interest in the individual and his problems. Most medical services go beyond the usual services in advising employees to get checked up and remedying ailments, such as teeth, tonsils, etc. He advocated that industrial medicine should be preventive medicine rather than curative medicine. He seemed to think the private physicians were doing a better job than the industrial surgeons. (In the author's opinion, one point to be considered in behalf of industry is that if the patient pays for this directly out of his own pocket he listens a little more carefully.) Dr. Roberts concluded with this question: "How far should the company go in providing this feature?" At present, the medical department alone decides medical policy.

Katherine Lembright, R. N., presented the nurses' viewpoint and stated that the nurse held a key position in industrial medicine, and an opportunity to

improve or maintain good relations between employer and employee through the medical department. She stated that often she was the only representative of the medical profession on the job all the time, and her duties were to assist in carrying out the doctor's work in the plant and to act as a liaison officer between the medical department, employee and employer.

Charles B. Gorey, Jr., representing the employer, stated that the industrial medical department must never give the employee the idea it is "against him and for the company." He stated that the most valuable asset any company has is the goodwill of its people. Mr. Gorey listed the following points for producing contentment: (1) Careful pre-examination of employees to see that they are placed in the right job. (2) Re-examination after being off from work—furlough, sickness, etc. (3) To see that working conditions are good. (4) Sound, diagnostic, and remedial measures frequently while the employee is working; annual physicals, examinations, x-rays, electrocardiograms, etc. He brought out the point that cooperation between plant and private physicians is important and the personal interest of the industrial physician in the employee is especially needed when he returns after an absence.

David A. Wolff, a lawyer, as labor referee, and chairman of the appeal board, Chrysler Corporation, said he didn't have many cases due to previous and present good relations between personnel and the medical department. He pointed out that it may be necessary to call in consultation to evaluate rights of seniority upon return to work and when disagreement exists between medical department and the private physician. The medical department, in a survey listing 28 points in public relations, rated 28th as to needs in public relations.

Harry Read, former newspaper man, and now assistant to the Secretary-treasurer, AFL-CIO, Washington, D. C., said that industrial relations go further than wages, hours, etc. He asked these questions: "How far should the employer go? the worker go? in regards to his health?" and answered "further than in the plant." He pointed out that 15,000 people were killed in industry; 29,000 people killed in homes; 38,000 killed on highways, and 90,000 people lost their lives altogether by accidents. He said he wanted safety and occupational disease out of the realm of collective bargaining.

Mr. Read believes that small plants are our

national problem; that the majority of occupational accidents occur in the small plants and not in the big plants.

Mr. Read said he believes the industrial nurses ought to organize; if they don't the union will, and said the union was willing to put on a two month strike to accomplish this. To this remark, Nurse Lembright and another nurse from the floor, objected strenuously. They were satisfied with the salary and work of the industrial nurse; and that a good nurse was paid well and they had a "no-strike-clause" in their contract. The nurses let it be known, in no uncertain manner, that they did not wish to be included under the union listing; but desired to continue their separate professional status.

The following questions and answers were asked from the floor: What are the limits of employer, nurse, and employee relations in the community? No satisfactory answer but all agreed it exists and should be more than at present. How do you measure the value of the medical department and public relations to the employee? It was pointed out that there were no tools available or adequate studies reported for this work. Should union and employer participate in the salary of the doctor in industry? Mr. Read believes the present system adequate; the present system best in the world today. What are some of the projects in medicine the company doctor should undertake? (1) Offer to help employees stay healthy. (2) Environmental safety. (3) Help employee to understand what is good for him and why. (4) Educational ideas in hygiene to take home.

The Monday afternoon session was entitled "Medicine's Responsibilities in the Automotive Age", arranged in cooperation with the committee on Medical Aspects of Automobile Injuries and Deaths of the American Medical Association. The first speaker was President Elmer Hess of the American Medical Association, who spoke on "Horse Power or Horse Sense". He said the destruction of people on the highway was a sordid spectacle; that 700,000 people had been wiped out on the highways in the United States in the past twenty years. More people (38,000) were killed last year than in the "Police action" in Korea (33,300). He pointed out that one in ten stand an excellent chance of being killed on the highway by 1970. Dr. Hess said that the neck and head injuries account for 70% of all injuries in automobile accidents; that we need to standardize safety equipment. He advocated better automobiles, better safety measures, better standardization of physical and mental tests for drivers and stricter enforcement of existing traffic regulations. Dr. Hess

said, "No child less than 18 years old should be allowed to drive after dark; this rule should be enforced by parents." Thorough medical examinations "every two or three years" should be made a requirement for relicensing of drivers more than 50 years of age. Licenses should not be given to persons with high blood pressure. He stated the "ill tempered" should not be permitted to drive. Hess suggested: (1) Interstate standardization of licensing procedures; (2) Stricter law enforcement; (3) Standardized safety improvements in automobiles; (4) A national research institute on safe driving; and (5) Better highways. He reported that a resolution by the A. M. A. House of Delegates had been sent to the President, requesting him to appoint a body to regulate safety standards concerning automobiles, licensing and road markings.

Ross A. McFarland said much has been done in vehicle design, but more can be done. What more do we need to know about the vehicle, the individual, and the influence of physical disabilities on driving safety? "Accidents belong in the field of preventive medicine." He pointed out that 66% of accidents occur at night or during low levels of illumination. In discussing this he said that commerce required speedy transportation and the volume was increasing, which made it necessary to set up a method of control. From one to forty-four years of age, automobiles were the greatest cause of accidental death. There was need to improve the design and operation of the automobile. Driver training reduced accidents by one-half. Repeated accidents cases need study. The statistical approach has been disappointing. Many drive as they live—recklessly. Diabetes, epilepsy, heart disease and hypertension as well as other diseases that jeopardize the drivers' operation of the automobile should be studied. Alcohol required a curb in its use when driving. McFarland stated that the aged are safer drivers when no stress was involved.

John O. Moore reported on new developments from Auto Crash Injury Research as conducted by Cornell University in ten states along the Eastern Seaboard, including Virginia. He said the passenger automobile was the common denominator of the American family and stated that injury was considered to be "damage due to force imparted to tissues." He found that in an accident only one in five riding in a car is killed. You are safer if you remain inside the car than if you are thrown out. The distribution of injuries are: 75% of the head and face; 25% of the extremities; 7% of the neck; 37% of the chest; and 1% of the abdomen and pelvis. The

cause of injury was found in 59% to be due to striking the dash; 50% had the doors open; 30% were thrown out. Listed in order of causes were doors, windshield, instrument panel and steering wheel. Moore reported that the average speed the car was making at impact was 41 miles per hour, and the average speed prior to the accident was 48 miles per hour. He also announced that the Ford Company had given a grant to Cornell for the inclusion of more states in the study of automobile accidents.

The realities of driver licensing was discussed by Paul H. Blaisdell who said that this subject had political aspects. Licensing is primarily for revenue and not for control. There are 72 million licensed drivers in the United States. He advocated that 50 cents be added to the cost of every driver's license or renewal. This will produce about thirty-five million dollars in the next four years. The money should be used to support research on driver testing, preferably under A. M. A. administration. The following points were brought out: There is no standard of marking the highways and licensing drivers among the states. We do not use the present laws that exist. Medicine should define which drugs should be withheld from drivers. Blaisdell listed three items found to be a median for performance in the states with the best highway safety records: 12 days of specialized training for driver license examiners; 15% failure of applicants on their first driver license examinations; and 90 suspensions and/or revocations of the license for every 10,000 licensed drivers.

The physician's responsibility before and after automobile accidents was presented by Dr. Jacob Kulowsky who stated that automobile accidents involved three types of persons: those not injured; those who are injured and survive; and those who are injured and die. They found the middle third of the face the most frequently injured part of the head; 25% of the head and chest injuries had no fractures; and in 38% the extremities received fractures. Automobile accidents were a challenge to first aid and emergency care and involved medico-legal aspects.

Mr. Benson Ford, vice-president of the Ford Motor Company, opened his remarks by saying that industry and medical association were both concerned by motor accidents and they were working on safety features in their cars, that they were interested in all the things that go into safe driving, namely: vehicles, drivers, pedestrians, highways, and the weather and when any one of these breaks down an

accident is likely to happen. He stressed the need for better driving, licensing, and driver training in high schools, saying that the Ford Motor Company contributed half million dollars yearly toward this project. He pointed out that 58 million motor vehicles were driven 85 billion miles in 1955. We need better roads. Ford cited Virginia in saying that when the two lane road was substituted for the one lane, accidents fell off 20% and the four lane divided highway reduced accidents by 60%. He hoped Congress will work on highway improvement.

Ford disagreed with Dr. Hess on standardization of safety equipment. He felt the development of safety equipment would advance more rapidly if kept competitive so that auto manufacturers would vie with each other to produce the safest cars. He also defended the industry's efforts to increase horsepower. The increase of power has not been matched by an increase in top speed. Since 1948 the horsepower has increased 66% while the speed has increased only 14% as horsepower is diverted to power-steering, power brakes, window elevation, generator use, air conditioning, and many other uses in the car. He stated that horsepower is a safety feature, since it allows faster action in escaping hazardous situations. Ford cited many safety features that the industry had adopted, such as changing from wooden bodies and wheels to steel, automatic starting, hydraulic brakes, power brakes, power steering, automatic dimmers, automatic transmissions, better headlights, better design, lower center of gravity, safety features, such as better visibility by safety glass, elimination of "blind spots", windshield wipers, defrosters, heaters, and protection in case of accidents such as safety belts, etc.

The final meeting concerned "Absence from work due to nonoccupational illness and injury." This program was arranged by the joint committee on Medical Care for Industrial Workers of the Council on Industrial Health and the Council on Medical Service of the American Medical Association.

Dr. L. J. Goldwater stated that absenteeism dates back to the pyramids. There is absenteeism due to conditions arising at home and you have to accept this. Costs of lost production due to absenteeism is difficult to measure, but it is estimated to be about 10% of the cost of production. He advocated health promotion so corrective medical treatment can be given.

Dr. Norman Plummer cited further causes for absenteeism: respiratory diseases, gastro-intestinal upsets, mental situations, off duty accidents, surgical

remedial measures and menstrual difficulties. Women have twice as much absenteeism as men, 25% will cause 2/3 of absence. The highest 10% will cause 50% of absence. The curves on the chart were shown to be the same for men.

Mr. S. E. Miller presented a syllabus on absenteeism and referred to it during his talk. There is need for good records and there is no standard definition of absenteeism. Different company's figures cannot be compared as they fit their particular needs and are handled differently.

Mr. John E. Sparling said absenteeism was a concern to management in cost and health of fifty million workers. Two million are absent daily. This represents 452,000,000 man-days lost annually. Work stoppages were a concern also. He showed that one, two and three days absence accounted for 55% of absence and the others 45%. He also showed that absence from one to nine days accounted for 70% absence and absence decreased with responsibility. Liking one's work and the supervisor has an influence on absence. Personal affairs account for 15% of absence.

Dr. F. A. Calderone said ten billion dollars were lost by industry yearly due to absenteeism. He gave two ideas: elimination of occupational hazards, and the medical department could help reduce non-occupational illness as an advisory service. Dr. Edward Holmes felt that illness outside of the plant was the "function of the private M.D." in treatment and care. He feels many are due to chronic illness, and this should be approached as a public health problem. There should be frequent and thorough physical examinations by the medical department and the data for correction of physical situations should be forwarded to the private practitioner. The employee and the private physician should be educated in the workings of the plant in terms of its medical problems.

Mr. A. K. Peterson reported on a study of 7,000 absentees in a control study over an eight year period. His procedures were as follows: (1) Daily morning absentee report. (2) Prompt classification of illness by telegram or telephone. (3) Inform employee on beginning work regarding reporting. (4) Card to report absence given employee. (5) Card showing what happened. (6) Note made on record. (7) Report to proper persons. (8) President sends letter to patient in hospital about insurance, etc. (9) Notify department heads with daily list of absentees. (10) Return to work card.

Dr. A. H. Price reported on the geriatric patient in industry and said prejudice as to older people

was unfounded. Industry should develop jobs that older people can do; they have less absenteeism than the younger group. Unless both the worker and management should benefit by retirement at 65 years, it should not be done; it makes the worker feel better and restores his usefulness and dignity of self support and removes him from being a burden on society.

Mr. Jerome Pollack, representing labor, said it was concerned in losses as to wages of the employee; and in protecting his rights; and that health and economic services were inseparable. He continued by saying that labor was not indifferent to the effect it had on industry and its productivity. For national security it was necessary to maintain productivity by mutual aid.

Unions believe that if employment is stabilized there will be less need for absenteeism and lay offs. Pollack said that health insurance benefits had been due to collective bargaining procedure. He said, "In the near future, there very likely is going to be a round of collective bargaining negotiations in which improved health protection may be the major target. You can be sure that one of the first improvements will be the inclusion of pre-paid preventive care." This demand to cover 1,200,000 members of the AFL-CIO United Auto Workers Union will be made in future contracts by the union's Social Security Director.

The final afternoon discussion centered around the subject of reducing job absence. Mrs. Louise M. Newman, representing the personnel director, stated that personnel worked with operations to create a pleasant atmosphere, and helped with supervisory instruction and stressed team work. She stated that they didn't pay for absence in the first six months. She reported that absenteeism was a negative word; that her duties concerned keeping proper attendance records, providing essential information for management, proper placement of the worker and aids for promotion of good health and good instruction.

Dr. Leo J. Wade said the industrial physician should be a consultant to management and that absenteeism cannot be eliminated; and some can be used profitably. Not everybody who uses or abuses absence does it malignantly.

At the close of the two day program, participants unanimously voted agreement with a suggestion that the Council and the A.M.A.'s committee on medical care for industrial workers map a plan for gathering work absence statistics and issuing periodic reports on them for industry's guidance.

Woman's Auxiliary . . .

<i>President</i> -----	Mrs. M. W. Glover, Arlington
<i>President-Elect</i> -----	Mrs. Lee S. Liggan, Irvington
<i>Vice-Presidents</i> -----	Mrs. Charles A. Easley, Danville Mrs. C. C. Hatfield, Saltville Mrs. John St. George, Portsmouth
<i>Recording Secretary</i> - - -	Mrs. J. R. Grinels, Richmond
<i>Corresponding Secretary</i>	Mrs. Robert Detwiler, Arlington
<i>Treasurer</i> -----	Mrs. William Grizzard, Petersburg
<i>Publication Chairman</i>	Mrs. William J. Weaver, Alexandria

Fairfax.

The Auxiliary to the Fairfax County Medical Society met March 6th at the Court House Country Club. Our meeting was preceded by a delicious luncheon served on tables decorated for Saint Patrick's Day. Mrs. Thomas Haggarty was hospitality chairman. Fines of 10 cents were collected from all members not wearing a bit of green. Chances were taken on our centerpiece, an azalea plant, and Mrs. Glen Thompson held the lucky number.

Our speaker was Mrs. E. G. Davis, Auxiliary chairman for the new Fairfax County Hospital. Her talk was entitled "Why, How and When?" and

was most enlightening concerning the status of plans for the new hospital.

Plans were discussed for a fashion show luncheon in May with Mrs. Robert Rounds as chairman. The hospitality committee, Mrs. Thomas Haggarty, Mrs. Edward C. Day and Mrs. Henry Kulesher, will assist her.

MARGARET BERNHART

Petersburg.

At the March meeting of this Auxiliary, Mr. Herbert F. Talbott, president of the safety council, spoke on Safety. Mrs. Robert C. Livingstone, chairman of the committee for Doctor's Day, reported on her plans for the celebration on April 5th. Mrs. Francis N. Taylor, who is in charge of collecting clothes for the Child Welfare Board, reported that clothes were furnished whenever the need arose. Mrs. William Grossman, chairman of the nursing scholarship, announced her committee's plans for the coming year.

At the April meeting, plans were completed to take the doctors to dinner in celebration of Doctor's Day. Mrs. Francis R. Payne, Jr., and Mrs. Kirby T. Hart, Jr., reported on the Easter egg hunt given for mentally retarded children.

Lawyer Urges M.D.s to Keep Detailed Records

"Failure to keep adequate, detailed records" is costing some doctors a pretty penny in adverse malpractice judgments. So warns the New York State medical society's chief legal counsel in the January issue of MEDICAL ECONOMICS.

So serious is the failure, William F. Martin asserts, that while "only one in eight malpractice suits reveals actual negligence on the doctor's part . . . the doctor loses one case in four." If physicians want to change these figures, he emphasizes, they must have "carefully-kept (files) of legible, logical and complete medical records."

Just what does he consider adequate record-keeping?

1. "It pays to record every basic fact in every case, with particular attention to names and dates. No jury believes that a busy physician can possibly remember the history, examination, and treatment

of all his patients." So a doctor should keep "written records of the patient's complaint, the physical findings, and the treatment prescribed, plus copies of laboratory, X-ray, and consultants' reports."

2. "It pays to write out complicated instructions, or any instructions to balk patients." Doctors should remember, says the legal counsel, "that oral evidence alone has led juries to some wild conclusions."

3. "It sometimes pays to make clear to the patient in writing that you're not guaranteeing the result. . . . Without something in writing, alleged-guarantee cases are hard to defend."

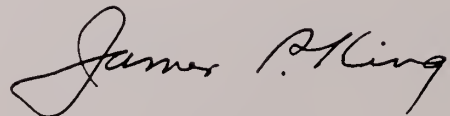
4. "It sometimes pays to keep records permanently." Statutes of limitations, for instance, don't protect defendants "in cases involving concealment, fraud, or a minor." Therefore, Martin concludes, "it's best to retain case records of active patients indefinitely."

President's Message

PUBLISHED elsewhere in this issue is a resume of bills of medical significance presented to the recent General Assembly. It is noteworthy that major legislation sponsored by this Society received favorable response of the legislators. Of equal importance, no bills strongly opposed by the Society were enacted into law.

One of the most important actions was the decision to refer the problem of corporate practice of medicine to the Virginia Advisory Legislative Council for study and recommendation. For a time it appeared that this controversial subject would be debated during the session. Largely through the efforts of our leaders, the question was referred to the VALC, which body will render its report in time for the 1958 session of the General Assembly. Because of the far-reaching effect that corporate practice may exert upon the private practice of medicine, it is of the utmost importance that every physician familiarize himself with the problem and lend his assistance towards a satisfactory solution.

Much of the credit for the smooth handling of our legislative program can be attributed to the efficient work of the Legislative Committee, headed by Senator James D. Hagood. In the General Assembly, Senator Hagood was assisted by Senator E. E. Haddock and Delegate W. C. Elliott. The Society is truly indebted to its Legislative Committee, and especially to Doctors Hagood, Haddock and Elliott, for its outstanding work in guiding our legislative program to a remarkably successful conclusion.

A handwritten signature in cursive script that reads "James P. King". The signature is fluid and elegant, with a large initial "J" and a stylized "P".

President

Home Care for the Tuberculosis Patient

ENTHUSIASTIC articles in the public press emphasize the effectiveness of the new antituberculosis drugs while glossing over the ramifications and complications of such treatment. The treatment of tuberculosis is more complex than the simple administration of pills.

In a consideration of home care perhaps we can define some of the criteria which would permit treatment of the patient at home, or demand hospitalization for specialized diagnostic studies and initiation of treatment.

Sanatorium care is advisable for all patients with a positive sputum. Such a patient should remain in the sanatorium until it can be definitely determined that his disease can be controlled by conservative treatment, that is, drugs and bed rest, and that surgery will or will not be necessary.

The sputum cannot be called negative until cultures are negative. Cultures of bronchial washings and gastric aspirates are useful extensions of sputum studies. Bronchoscopy is not usually done in the office or clinic, and it may be required in the diagnosis or treatment of the patient. The standard 14" by 17" roentgenogram is not dependable in proving the presence or absence of cavitation. Special x-ray equipment capable of body section films (laminography or planography) is often required. A surgical opinion would be unfair to both patient and physician unless all possible pertinent information is available.

Drug administration has become more complicated with increased knowledge of drug effects and complications and with the discovery of new agents. The drugs should be used in the proper combination in order to prevent the emergence of drug-resistant strains of the tubercle bacillus. Tests to determine sensitivity or resistance to drugs must be done when a positive sputum persists, and on other indications. New substances such as Viomycin, Pyrazinamide, and others yet unreleased, constitute added help in retreatment, but their administration and complications require unusual clinical experience. Frequent clinical, x-ray, and detailed laboratory studies may be necessary to evaluate the patient's progress and to answer at any time such questions as:

Should his drug combination be changed, and, if so, when and to what?

Are certain drugs preferable in patients with open cavities?

Should the patient have surgery and, if so, when?

What treatment should the old chronic patient with positive sputum receive, and how long should he receive it?

There are probably a relatively small number of patients who should be treated at home. These have minimal tuberculosis and a negative sputum. If home care is contemplated, the home conditions must be carefully evaluated. The patient must assume a greater responsibility for his conduct and his treatment. If the patient is economically independent he may be able to save some money by remaining at home. Whether this is true will depend somewhat on the efficiency of his treatment. If he is unable to obtain the necessary tests and proper x-rays his illness may actually become more prolonged and have a less successful outcome, than if he had sought sanatorium care from the beginning.

If the patient is to be treated at community expense, it is much more likely that his treatment will be successful if he is admitted to the sanatorium and required to remain there until his condition is satisfactory and his sputum is negative. When

the community must care for his family it is imperative that his treatment be as rapid and as effective as possible. Widely scattered patients in a geographical area may require considerable expense in time and effort on the part of the public health nurses to supervise such individuals. While the patient is in the sanatorium his economic and physical situation can be evaluated and he may be referred for rehabilitation training if this seems indicated. In fact, some of this training may be started while he is still receiving care in the sanatorium.

Patients who are on home care, or who return home after leaving the sanatorium against advice, are prone to interrupt or discontinue their drug treatment for reasons which may seem adequate to them. Experience has shown that interruption of treatment lengthens the period of disability, and increases morbidity and mortality.

After the patient has received maximum benefit from the sanatorium care, his sputum is negative and he has acquired knowledge of his disease, then he may quite successfully continue his treatment at home. Even at this time he should be under competent and frequent supervision, such as it is planned will be offered in the Regional Chest Clinics. It should not be anticipated that these clinics will offer an easy and painless detour around the Sanatorium.

E. C. DRASH

Dr. Rucker's Memorial Book

IT IS anticipated that a prospectus describing "The Selected Writing of Marvin Pierce Rucker" will be sent to all members of The Medical Society of Virginia during the next few weeks.

This most worthwhile publication is the joint effort of the Board of Health of the City of Richmond and the staff of the Johnston-Willis Hospital. It also has the endorsement of the Board of Trustees of the Instructive Visiting Nurses Association. The proceeds from the sale of this memorial volume will be used to establish a scholarship fund for the training of public health workers.

Dr. Rucker, who died at the age of seventy-two on October 23, 1953, made many contributions to the medical, religious and civic life of Richmond and his native Virginia. He was President of the American Association of Obstetricians, Gynecologists and Abdominal Surgeons in 1934, the Richmond Academy of Medicine in 1937, the South Atlantic Association of Obstetricians and Gynecologists in 1940, The Medical Society of Virginia in 1948, and Chairman of the Section on Obstetrics and Gynecology of the American Medical Association in 1937 and of the corresponding section of the Southern Medical Association in 1927, to mention only some of the many honors bestowed upon him in recognition of his contributions in the field of Obstetrics and Gynecology.

Dr. Rucker for many years was a Trustee of Randolph-Macon College. He was Chairman of the Board of Stewards of historic Centenary Methodist Church. His interest in preventive medicine and public health led him to serve on first the Manchester and later the Richmond Board of Health. He was Chairman of the latter organization during the last four years of his life.

In addition to these activities, as well as a large and demanding practice, Dr. Rucker found time to be Editor of the Virginia Medical Monthly from 1942 to his death eleven years later. Each month found one or more editorials from his facile pen. He also included in each issue of the Monthly a brief description of a physician whose name has been given to some flower, shrub, plant or tree. This unique series was captioned "Floral Eponyms" and was read not only by our state subscribers

but by botanical students throughout the country. Dr. Rucker's interest in medical history prompted an additional feature—"Pen Profiles" which dealt with medical personages of the past.

The "Selected Writings" of Dr. Rucker contains many of the latter two items as well as some of his purely scientific contributions. An introduction by Dr. E. M. Holmes, Jr., Director of Public Health, City of Richmond, and the moving spirit in the preparation of this book, describes the considerations that prompted its publication. A biographical sketch, prepared by his life-long friend, Dr. J. Morrison Hutcheson, is included. A bibliography of all papers, written by Dr. Rucker, is appended.

It is hoped the members of The Medical Society of Virginia will respond to this opportunity to obtain and preserve this memorial to one of Virginia's most outstanding and versatile physicians.

H. J. W.

Society Proceedings

Norfolk County Medical Society.

The Annual Spring Clinic of this Society was held on March 28th. The following program was presented: Epidemic Infections in the Newborn and their Control by Dr. Warren E. Wheeler, Ohio State University Medical College; The Rational Use of Antimicrobials by Dr. David E. Rogers, New York Hospital; Comprehensive Care of the Patient with Duodenal Ulcer by Dr. Thomas P. Almy, Bellevue Hospital, New York; Surgical Care of Facial Injuries by Dr. Richard B. Stark, Cornell Medical College; The Importance of Adequate Pulmonary Ventilation during Surgical Operations by Dr. John H. Gibbons, Jr., Jefferson Medical College; and The Advances in the Vaginal Diagnoses and Treatment of Pelvic Lesions by Dr. F. Bayard Carter, Duke University School of Medicine.

Members of the program committee were Dr. Arnold F. Strauss, Chairman, and Drs. R. E. McAlpine, H. Clarkson Meredith, Millard B. Savage and Eugene Lowenberg.

Southwestern Virginia Medical Society.

The Spring meeting of this Society was held in Marion on April 12th under the presidency of Dr. James L. Chitwood, Pulaski. The scientific program was: Treatment of Hydrocephalus in Children by Dr. Edgar N. Weaver, Roanoke; Letterer-Siwe's Disease by Dr. Richard H. Fisher, Roanoke; Current Concepts of Tinea Capitis by Dr. Irwin E. Phillips, Bristol, Tenn.; Thoracic Surgical Problems in Children by Dr. Marcellus A. Johnson, III, Roanoke. At the Banquet, Dr. J. Edwin Wood,

Jr., University of Virginia, spoke on Some Recent Observations on the Diagnosis and Treatment of Myocardial Infarction.

Dr. J. T. Showalter, Christiansburg, is vice-president of this Society and Dr. Reverdy H. Jones, Jr., Roanoke, secretary-treasurer.

Danville-Pittsylvania Academy of Medicine.

At the January meeting of the Academy, Dr. Sidney Olansky, Duke University, spoke on Newer Concepts in the Treatment of Syphilis.

At the February meeting, Dr. Theodore Fetter, Jefferson Medical College, spoke on Urological Abnormalities in Children.

Dr. Porter P. Vinson, Medical College of Virginia, was the speaker for the March meeting, his subject being Diseases of the Esophagus.

Dr. J. J. Marsella is president of the Academy and Dr. Charles L. Ransom, secretary-treasurer.

Medical Society of Northern Virginia.

At the meeting of this Society on April 10th, the scientific program was: Melanosarcoma—Five Year Cure by Dr. L. K. Woodward, Jr., Woodstock; Pneumococcal Abscess of the Spleen by Dr. W. B. Crawford, Woodstock; and a Case Report by Dr. J. C. Hortenstine, Winchester. The guest speaker at the luncheon was Dr. Arthur F. Abst, Chief of the Radioisotope Service of the VA Center, Martinsburg, W. Va.

Dr. H. P. Maccubbin, Winchester, is president of this Society and Dr. D. P. McCarty, Front Royal, secretary-treasurer.

Richmond Academy of Medicine.

On April 10th, the J. Shelton Horsley Memorial Lectureship was delivered by Dr. J. Hartwell Harrison, Professor of Genito-Urinary Surgery of Harvard Medical School. His subject was Surgery of the Adrenals.

Accomack County Medical Society.

Officers for this Society for 1956 are: President, Dr. Walter Eskridge, Parksley; vice-president, Dr.

J. Fred Edmonds, Accomac; and secretary-treasurer, Dr. James C. Doughty, Onancock.

Virginia Pediatric Society.

At the annual meeting of this Society, held in Williamsburg, March 17th, Dr. Thomas S. Chalkley, Richmond, was elected president. Dr. Armistead P. Booker, Charlottesville, is vice-president and Dr. Harry D. Cox, Portsmouth, secretary-treasurer.

News

Calendar of Coming Events

AMERICAN GOITER ASSOCIATION—Drake Hotel, Chicago, Illinois—May 3-5.

VIRGINIA ACADEMY OF SCIENCE—Section of Medical Sciences—Washington Room, Hotel Jefferson, Richmond, Virginia (9:00 a.m.)—May 11.

VIRGINIA SOCIETY OF OPHTHALMOLOGY AND OTOLARYNGOLOGY—Convention Cruise to Havana and Nassau (sailing from Norfolk)—May 26-June 2.

AMERICAN COLLEGE OF CHEST PHYSICIANS—22ND ANNUAL MEETING—Hotel Sherman, Chicago, Illinois—June 6-10.

105TH AMERICAN MEDICAL ASSOCIATION ANNUAL MEETING—The Palmer House, Chicago, Illinois—June 11-15.

THE MEDICAL SOCIETY OF VIRGINIA—Hotel Roanoke, Roanoke, Virginia—October 14-17.

SOUTHERN MEDICAL ASSOCIATION GOLDEN ANNIVERSARY MEETING—Washington, D.C.—November 12-15.

New Members.

The following new members have been admitted into The Medical Society of Virginia, since the list published in the April issue of the Monthly:

Emerson Daniel Baugh, M.D., Kenbridge
James George Brown, M.D., Alexandria
Adolphe Max Ehrenworth, M.D., Norfolk
Frank Louis Fernandez, M.D., Ft. Eustis
Charles Irving Fuller, Jr., M.D., Norton
William Beecher Greene, M.D., Petersburg
Warren Collins Gregory, M.D., Winchester
Margaret Hatfield, M.D., Petersburg
Vincent Paul Hollander, M.D., Charlottesville
James Burnette Kegley, Jr., M.D., Chincoteague
Marvin Hayne Kendrick, M.D., Alexandria
Jean D. Lockhart, M.D., Alexandria
Walter Mayer, M.D., Richmond
Thistle Maria McKee, M.D., Alexandria
James Lloyd Mims, M.D., Alexandria
Henry Darwin Murray, M.D., Waynesboro

Juul Christian Nielsen, M.D., Petersburg
Beryl Henry Owens, M.D., Rose Hill
William Garrett Rickard, M.D., Charlottesville
Edward George Rosanelli, M.D., Richmond
Joseph Edward Rucker, M.D., Roanoke
William A. Shelton, M.D., Boynton
Gordon Bennett Tayloe, M.D., Norfolk
Charles Henry Townes, M.D., Petersburg

Dr. Harry J. Warthen, Jr.,

Has been elected chairman of the Richmond Board of Health to fill the vacancy caused by the death of Dr. Emily Gardner.

Dr. Henry B. Mulholland,

Assistant dean and professor of medicine of the University of Virginia School of Medicine, was elected to the board of directors of the National Health Council at the annual convention of the national council in New York.

Dr. Mulholland is honorary chairman of the Virginia Council on Health and Medical Care.

Dr. Guy C. Richardson,

Bristol, is general chairman of the Bristol Centennial Celebration which began on January 1st. There is something "doing" the entire year and on May 26th the Governors of Tennessee and Virginia will meet in one of the most impressive and unusual events of the celebration. The climax of the summer activities will be Pageant Week, July 29-August 4. Bristolians will wear clothing of the 1850-1860 vintage and every able-bodied man will sport either a beard or a mustache, or both.

A full account of this Celebration is given in the March issue of *The Commonwealth* published by the Virginia State Chamber of Commerce.

Visitors to Eli Lilly and Company.

Members of the Roanoke Academy of Medicine and their wives visited Eli Lilly and Company, Indianapolis, March 11-13. While guests of Lilly's, they inspected the research laboratories and toured pharmaceutical, biological and antibiotic production facilities.

Third Row—Dr. R. Earle Glendy, Dr. Margaret Glendy, Mrs. Charles Young, Jr., and Dr. Young, Dr. and Mrs. P. A. Richards, Mrs. G. M. Wright and Dr. Wright, and Mrs. P. A. Wallenborn and Dr. Wallenborn.

Dr. Louis Z. Fauteux, Jr.,

Recently of Arlington, has accepted the position of Director of Medical Education at St. Joseph's Hospital, Paterson, N. J.

American Medical Women's Association.

The newly organized southeastern Virginia branch of this association was organized on April 6th in Richmond. The following officers were elected: president, Dr. Hertha Riese, Richmond; vice-president, Dr. Louise Leland Clark, Chester; and secretary-treasurer, Dr. M. Jane Page, Richmond.

Dr. Joseph L. Platt,

Lynchburg, addressed the Virginia Chapter of American Physical Therapy Association, meeting in Lynchburg on March 17th. His subject was "Care of the Back".



Those who attended were: Left to right, first row—C. H. Wyrick, Lilly representative, Dr. and Mrs. Richard H. Cross, Dr. Duvahl Ridgeway, Dr. and Mrs. Frank Angell, Dr. G. June Thomas, Mrs. Charles Irvin, and Mrs. Paul T. Forth and Dr. Forth.

Second row—Dr. and Mrs. W. H. Robison, Dr. and Mrs. H. B. Stone, Jr., Mrs. M. H. Williams and Dr. Williams, Dr. Charles Irvin, and Mrs. W. W. S. Butler, III, and Dr. Butler.

Chaplain of Virginia Academy of General Practice.

Dr. W. Taliaferro Thompson, dean of instruction at Union Theological Seminary, Richmond, has accepted an invitation to become the first chaplain of the Virginia Academy of General Practice. His main responsibility will be for a religious service which closes each annual scientific assembly held by the Academy.

Dr. Donald S. Daniel,

Richmond, has been appointed by Governor Stanley as a member of the State Board of Medical Examiners. He will fill the vacancy left by the death of Dr. Emily Gardner.

Dr. W. Gayle Crutchfield,

Chairman of the department of neurosurgery of the University of Virginia School of Medicine, was elected president of the Southern Neurosurgical Society at the annual meeting of the society in Jacksonville, Fla.

The Ford Foundation Grants.

The first mailing of more than 1,000 checks, totalling \$37,748,800 to hospitals in all the 48 states, the District of Columbia, Alaska, Hawaii and Puerto Rico, has been made by the Ford Foundation. This is the first mailing for the Foundation's \$200,000,000 program to help improve and expand hospital services.

Those hospitals listed from Virginia are: Johnston Memorial Hospital, Abingdon; Anderson Orthopedic Hospital and Arlington Hospital, Arlington; Dixie Hospital, Hampton; Rockingham Memorial Hospital, Harrisonburg; Page Memorial Hospital, Luray, Virginia Baptist Hospital, Lynchburg; Martinsville General Hospital, Martinsville; Riverside Hospital, Newport News; Leigh Memorial Hospital and Norfolk General Hospital, Norfolk; Norton Community Hospital and St. Mary's Hospital, Norton; Roanoke Memorial Hospital, Roanoke; Louise Obici Memorial Hospital, Suffolk; Fauquier Hospital, Warrenton; Winchester Memorial Hospital, Winchester; and Shenandoah County Memorial Hospital, Woodstock.

The total amount sent to these hospitals was \$599,900 which represents one-half of the total grant.

Dr. Carl C. Nydell,

Addressed the Gloucester High School PTA in March, his subject being the value of proper eating as a factor in good health.

Virginia Academy of Science.

The Section of Medical Sciences of the Academy will meet at the Jefferson Hotel, Richmond, May 11th at 9:00 A. M. All members of The Medical Society of Virginia are invited to attend.

Virginia Association of Medical Assistants.

At a meeting of medical office personnel from va-

rious cities in Virginia, held February 25 and 26 in Lynchburg, a statewide organization to be called Virginia Association of Medical Assistants was formed. Officers are: president, Mrs. W. G. Dove, Lynchburg; vice-president, Mrs. George Spain, Petersburg; recording secretary, Miss Vivienne Rewell, Lynchburg; corresponding secretary, Miss Catherine Whittle, Petersburg; and treasurer, Mrs. S. F. Reynolds, Tazewell.

The next meeting of this Association will be held in Richmond, March 9-12, 1957.

International College of Surgeons.

At the Southeastern regional meeting of the International College of Surgeons, held in Chattanooga, April 30th and May 1st, among those on the program was Dr. Eugene L. Lowenberg, Norfolk, who spoke on Modern Treatment Treatment of Peripheral Vascular Disease, and Dr. M. K. King, Norfolk, who spoke on Surgery in Infancy.

Wanted.

Physician to take over large general practice on permanent basis. Discussion of arrangements on request. Write #70, care the Monthly, P. O. Box 5085, Richmond 20, Va. (*Adv.*)

For Rent.

Doctor's office, 3 doors west of Lee Medical Building, Richmond. Will remodel to suit. Write "Office", care the Monthly, P. O. Box 5085, Richmond 20, Va. (*Adv.*)

For Rent.

Doctor's office, suitable for pediatrician or general practitioner, in Richmond. Write #75, care the Monthly, P. O. Box 5085, Richmond 20, Va. (*Adv.*)

Wanted.

General practitioner and one general surgeon (board eligible or F.A.C.S.) as associates. Surgeon willing to do industrial practice and limited general practice. Send complete biography and photograph in first letter to #45, care the Monthly, P. O. Box 5085, Richmond 20, Va. (*Adv.*)

Physician Wanted.

General Practitioner, who is retiring, wants doctor to take over his practice. Write "G.P.", care the Monthly, P. O. Box 5085, Richmond 20, Va. (*Adv.*)

Obituaries

Dr. Emily Chenault Runyon,

Richmond's first woman doctor, died on April 2nd, at the age of ninety-eight. She was a graduate of the Northwestern University Woman's Medical School in 1888 and located in Richmond in 1895. Dr. Runyon's arrival in Richmond was openly opposed by several physicians who objected to a woman's practicing medicine. She gained an appointment to the staff of the Old Dominion Hospital as a gynecologist and also practiced at Sheltering Arms Hospital. In 1907, Dr. Runyon went to China where she practiced for a short time in a mission. Upon her return to the United States, she went to Mississippi where she served for five years as director of health work in the State College for Women, but then returned to Richmond where she resumed her practice. Dr. Runyon was a charter member of the Richmond branch, American Association of University Women and was the first Richmond doctor to be elected to the Altrusa Club.

She was a Life Member of The Medical Society of Virginia, having been accepted in 1895 after considerable debate, it being felt by many that they "did not believe this Society was ready to admit women to membership."

Dr. Runyon had retired from practice some years ago but at the age of eighty-seven, she presided over the successful emergency delivery of one of her great-grandsons.

A daughter, three grandchildren and four great-grandchildren survive her.

Dr. Joseph Clinton Dunford,

Prominent physician of Portsmouth, died March 22nd, having been ill for only one day. He was seventy years of age and a graduate of the Medical College of Virginia in 1909. Dr. Dunford had practiced medicine in Portsmouth for some forty years and was a former member of the City Council. He was a veteran of World War I, having been discharged from the U. S. Army with the rank of Captain. Dr. Dunford was very active in sports, having been connected with the old Suwanee Athletic Club for many years. He had been a member of The Medical Society of Virginia since 1913.

His wife and a daughter survive him.

Dr. Mary Barney Baughman,

One of Richmond's pioneer woman physicians, died March 30th, having been in ill health for some

time. She was eighty-one years of age and was one of the first woman graduates of the Medical College of Virginia, receiving her degree in 1922. Before she studied medicine, Dr. Baughman helped introduce gymnastic classes for women at the YWCA. She had been in general practice in Richmond since her graduation until her retirement about four years ago. She was the first person in Richmond to give out birth control information.

She had been a member of The Medical Society of Virginia for thirty-three years.

A sister and two brothers survive her.

Dr. Gardner.

Dr. Emily Gardner was born June 30, 1899, in Franklin, Virginia, the daughter of Abraham Littleton and Lelia Norfleet Gardner. Having entered Westhampton College at an early age, she was graduated with the B. A. degree in 1918 before her nineteenth birthday. She attended the Woman's Medical College of Pennsylvania in Philadelphia, and received her M. D. degree from that institution in 1922. During the following two years she continued her medical training at the Western Pennsylvania Hospital in Pittsburgh.

Upon returning to Virginia in 1924, Dr. Gardner was appointed assistant Director of the Bureau of Child Health of the State Health Department, which position she held for four years. In 1928 she resumed her pediatric training and spent a year at the Willard Parker Hospital, New York, and the Kingston Ave. Hospital, Brooklyn. This was followed by an eighteen month period of training at Babies Hospital in New York City. In 1931 she held a fellowship of the Mary Putnam Jacobi Fund and studied during this period at pediatrics clinics in England, Scotland, and Austria. After the completion of this year abroad, she opened her office in Richmond in 1932 for the practice of pediatrics, and so commenced the span of twenty-five years of dedicated service to her patients, and to this community, which ended at her death on January 23, 1956.

* * * * *

Dr. Gardner served as Chairman of the Advisory Committee of the Richmond Tuberculosis Association and also as a member of the Board of Directors of the Richmond Tuberculosis Association, the Richmond Heart Association, the Y. W. C. A., and the Children's Aid Society. She was a member of the Board of Trustees of the University of Richmond from 1937 until her death. She was a member of Phi Beta Kappa, * * * * *

This chronicle of accomplishments attests to her disciplined intellect, her continuing desire to share in the work of community service, and her capacity to carry the burdens and responsibilities inherent in professional and community leadership. This record of her life bears witness to the growing esteem in which her colleagues hold

her, the increasing confidence placed in her deliberations at the conference table, the steadiness of purpose, and the wise council expected of her in matters affecting the welfare of the people of this state. Such notable contributions to community service, interwoven with the daily exigencies of a busy private practice, are ample evidence of the endurance, forbearance, and the strength, which characterized her work.

However, the inner spirit of Dr. Gardner's life was perhaps more remarkable than her achievements. For all who came to her she had gentleness for their suffering, wisdom for their guidance, patience for their intolerance, hope for their despair, and joy in their goodfortune. Devoid of arrogance, pride and vanity, she was a woman of modest manner and unusual personal charm, with an eager interest in the world about her, an unfailing sense of humor, and above all a deep faith and happiness in the Christian way of life.

During her last illness of some ten months, being fully aware of its certain outcome, she faced each day with serenity of spirit and peace in her heart. She walked as she had always walked, with courage, dignity, and humility.

THEREFORE BE IT RESOLVED that Dr. Gardner's death removed from this community a beloved physician, a wise counselor, and a devoted friend.

BE IT FURTHER RESOLVED that a copy of this resolution be recorded in the minutes of the Richmond Academy of Medicine, and that a copy be sent to the members of Dr. Gardner's family, and one to the Virginia Medical Monthly.

ISABEL TALIAFERRO
EMMETT MATHEWS
HENRY DECKER

Dr. Graham.

In the death of Dr. Charles Fox Graham, who was accidentally killed when his car was struck by a train on February 22, 1956, the community and each one of this Society sustained a great loss. Not only was Dr.

Graham a beloved physician and a leader in our community and county, but he was well known throughout the entire state and was always at home in any group. As a physician he was most proficient in the Science of Medicine. In addition to this, with his gentleness and kindness, he truly practiced the Art of Medicine.

Dr. Graham was born in Wytheville, Virginia, March 19, 1891. He had his early education in the Wytheville Schools and received an A. B. degree from Hampden-Sydney College in 1912. From Hampden-Sydney he went to the Medical College of Virginia and graduated there in 1916. He was house surgeon at the St. Lukes Hospital, Richmond, in 1916 and 1917. Following his training there he entered the United States Navy during World War I and served as Senior Medical Officer at the U. S. Naval Operating Base, Hampton Roads. He returned to Wytheville to practice following his naval service and practiced here until his death on February 22, 1956.

Dr. Graham belonged to the American Psychiatric Association, The Wythe-Bland Medical Society, The Southwest Virginia Medical Society, The Medical Society of Virginia, The American Medical Association, Theta Chi, Phi Rho Sigma Fraternities. He was a devout Mason and belonged to many other civic organizations. He was a member of the Presbyterian Church and held the position of an Elder in the church.

Dr. Graham is survived by his widow, Mrs. Louise Mountjoy Pollard Graham, and one son, Charles Fox Graham, Jr.

WHEREAS in his passing we have suffered an immeasurable loss;

THEREFORE BE IT RESOLVED that this tribute be recorded in the official minutes of the Wythe-Bland Medical Society,

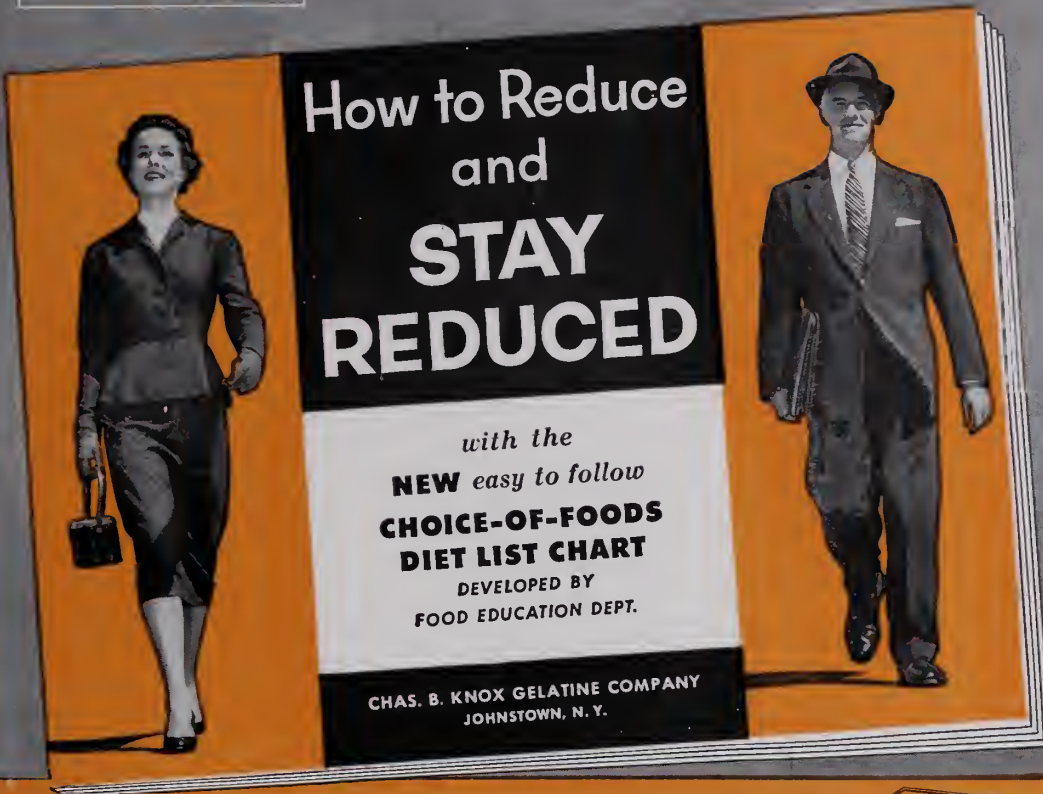
AND BE IT FURTHER RESOLVED, that a copy of this resolution be sent to Dr. Graham's family,

AND BE IT FURTHER RESOLVED, that a copy of this resolution be transmitted to The Medical Society of Virginia to be published in the Virginia Medical Monthly.

W. R. CHITWOOD, M. D., *Chairman*

KNOX

Protein Previews



New Booklet Available to Aid Management of Overweight Patients



The 1955 edition of the well-known Knox "Eat-and-Reduce" booklet eliminates calorie counting for your obese patients. This year's edition is based on the use of Food Exchange Lists¹ which have proved so accurate in the dietary management of diabetics. These lists have been adapted to the dietary needs of patients who must lose weight.

The first 18 pages of the new booklet present in simple terms key information on the use of Food Exchanges (referred to in the book as Choices). In the center, double gatefold pages outline color-coded diets of 1200, 1600, and 1800 calories based on the Food Exchanges. Physicians will find these diets easy to revise to meet the special needs of individual patients.

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plans, the last 14 pages of the new Knox booklet are devoted to more than six dozen *tested*, low-calorie recipes. Please use the coupon below to obtain copies of the new "Eat-and-Reduce" booklet for your practice.

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VIRGINIA

MEDICAL MONTHLY



THE N.Y. ACADEMY
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VIRGINIA MEDICAL MONTHLY

(Founded by Landon B. Edwards, M. D., April 1874)

PUBLISHED MONTHLY BY THE MEDICAL SOCIETY OF VIRGINIA

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1105 West Franklin Street
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Annual Subscription—\$2.00
Single Copies—25¢

TABLE OF CONTENTS

GUEST EDITORIAL

Why Write—Leslie E. Daugherty, M.D.----- 233

SCIENTIFIC ARTICLES

Medical Education of One Hundred Years Ago—
John Bell Williams, D.D.S., Ph.G.----- 235

Neurological and Psychiatric Disorders—
Walter O. Klingman, M.D.----- 240

Misconceptions in Poliomyelitis—George J. Boines, M.D.-- 247

Cardinal Principles of Plastic Surgery—
Claude C. Coleman, M.D.----- 250

Leiomyoma of the Ovary—Hyman Cantor, M.D.----- 253

Drug Eruptions—Asher A. Friedman, M.D.----- 258

Tinea Capitis Infections in Virginia—J. Douglas Reid,
Sc.D., and Evelyn B. Carter----- 261

MENTAL HEALTH

Who Are the Patients in our Mental Hospitals?----- 263

PUBLIC HEALTH

Poliomyelitis Vaccine Production----- 265

WOMAN'S AUXILIARY ----- 267

PRESIDENT'S MESSAGE

The Social Security Poll----- 269

EDITORIALS

The Radiologist and His Fellow Physicians----- 270
"Cancer and Common Sense"----- 271

SOCIETY PROCEEDINGS ----- 272

NEWS ----- 272

OBITUARIES ----- 274

SHORT SUBJECTS—"Fencing In" Toddlers, 234; Cardiac Ar-
rest Survival, 239; Seamless Synthetic Artery, 246; Pathology
Coverage in Virginia, 252; Myleran in Leukemia, 257; "Alcohol
Pain", 260; Stuttering, 262; Cousins May Marry, 264; Treat-
ment of Parkinsonism Symptoms, 266

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INDEX TO ADVERTISERS—Page 54

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Guest Editorial

Why Write

"The writer does the most who gives the reader the most knowledge and takes from him the least time."—SIDNEY SMITH

WE HAD THE good fortune to attend the Annual Session of the American Medical Writers' Association, where were gathered as a composite group, editors, free lance writers, feature story writers, lay health writers and writers for house organs.

Never have I seen a more enthusiastic group searching for better ways to speak the truth, in a more understandable way, that physicians and the public at large may learn how to live longer, happier and healthier.

From coast to coast and the Great Lakes to the Gulf, men and women became just students, again learning with the eagerness of a child in a kindergarten, what makes a Medical Journal tick and what puts scientific discoveries across.

What did they do? From copy to galley proof through composition, style, tone, mode and with an accent of Shakespearian drama, emphasis on simplicity in word and language was stressed, to better convey on paper the spoken word in the simplest and most effective manner.

Thus, those of us who might gain new knowledge with the least effort in the shortest possible time, were not to write two words when one would do.

With five guide posts, namely: what, when, where, why and how, let's take a look. Whom do you wish to reach? If you think you have something you ought to tell another physician, it most likely would be interesting and valuable to a lot of physicians. Tell it to him specifically on paper, as though you were talking to him directly.

You know he is a very busy man and so you wouldn't waste his time and you get right to the point. What is the point?

The great Voltaire, in writing to his friend, apologized for such a lengthy letter, saying "If I had more time, I would have written you a shorter letter."

Ideas on paper can be no greater than their creator. Readers have one interest; namely, self interest. What interests you? If so, it most likely interests him, but this is not all.

Did it save your patient's life? Did it stop him from worrying? I once knew a physician who told me and I quote, "Each patient is a new experience for me." Are you as glad to see him, as he is glad to see you? Well, then write his case history. Read it before your Society. Have it published, if you can. You and your good work will be known to thousands. Write, rewrite, delete, than cut in half. Illustrate it with pictures, or a drawing, if that will make it clearer or more understandable.

An old Chinese proverb says: A picture is worth a thousand words.

LESLIE E. DAUGHERTY, M.D.

Seven Washington Street
Cumberland, Maryland

This Editorial appeared in the March, 1956, issue of the Maryland State Medical Journal and is reprinted with the permission of the author and the Journal.

"Fencing In" Toddlers

An Evanston, Ill., pediatrician recommends that preschool children be separated from "adult gadgets and trouble" for at least half of their play time. Dr. E. Robbins Kimball said this will help the child in his adjustment and adaptability by allowing him to escape adult "no" for part of his time and by slowing down the expansion of his world to the point where he can handle it.

A child does not really understand what belongs to him and what belongs to his parents until he is four years old. Until then he should be relieved of the responsibility of not touching the possessions of adults for half of his playing hours (four hours a day), Dr. Kimball said in the March 24th Journal of the American Medical Association.

Because parents cannot live in a nursery, Dr. Kimball suggested that the child be separated from the adult world by means of a play pen, gated room or porch, fenced yard, or nursery school, depending on his age. Such "compartmentation" gives nervous mothers relief and decreases the number of household accidents. In addition, it prevents the child from developing habitual patterns of resistance to adults as they try to direct him.

In a study of 363 children, followed for five to 10 years, Dr. Kimball found that a child adapted

to new situations more readily as soon as he escaped the adult "no" for half of his play time. In fact, toddlers' adaptability increased fourfold with "fencing in".

He also found that being a first child, having nervous parents, and not being breast fed, had an adverse effect on the child's adaptability.

Many first children had difficulties in adjustment because their parents, being unfamiliar with growth, expected them to perform at about twice their developmental level.

"Many of these parents would have been indignant if a school system had tried to force their nine-year-old child to master a topic such as calculus. Yet, many persisted in teaching their two-year-old the differences between mine and thine, not to spill food, not to suck his thumb, to give up his bottle, and many other habits that he was not ready to master until twice that age."

Dr. Kimball found that children who had trouble adapting "looked with questioning, frequently with apprehension, and too often with great fear at all adults" during examinations. Others, instead of being cautious, were boldly aggressive and ignored direction. Children who showed more adaptability were calm and smiling and enjoyed the examination.

Medical Education of One Hundred Years Ago

As described by Dr. William H. Taylor—A Condensation

JOHN BELL WILLIAMS, D.D.S., Ph.G.
Richmond, Virginia

IT IS said that while Virginia's tobacco crop has sometimes failed her, never has she failed of a crop of vivid personalities. For nearly a century since the Civil War, few Virginians could aspire to national leadership in the Old Dominion's illustrious tradition of statesmanship. Yet even during the depths of poverty immediately following that tragedy, when Virginia was rebuilding from a blood-stained battleground—without any Marshall plan—every locality was blessed with men of intellect and character, versatile men of engaging personality, who made life eminently worth living. Such a man was Dr. William H. Taylor. The young people present may be reminded that he was a Confederate soldier, a physician, a chemist, a physicist, a naturalist, a scholar, and a teacher, who, in 1905—just seven years after radium was discovered—not only predicted the split of the atom but also indicated its force. All of this he was. But today he is best remembered as “Old Coroner Taylor” of the thick-lensed glasses, who, when his evidence was questioned in court because of his near-sightedness, wilted his inquisitor with the reply: “I can see the sun, ninety-three million miles away. / Can you see further?”

Old Coroner Taylor, when he died in 1917 at the age of 82, had been both a part of the epic struggle that rebuilt Virginia and the epic march of science that laid the foundation upon which modern medicine was built. He entered the Medical College of Virginia in 1854—at the beginning of a century of wonders, which, by comparison, would outstrip the wildest dreams of Aladdin. On May 26, 1913, he delivered a lecture to the students and former students that gives an entertaining, and sometimes horrifying picture of the mud-flats from which medicine and medical education have risen to their present high pinnacle. The lecture, entitled *Old Days at the*

Old College, unconsciously employed stylistic devices from such classical writings as the Bible, Milton, Dickens, and Arnold—for the “Old Coroner” was very erudite, despite his near-sighted eyes.

His literary interests, without doubt kindled at his family fireside, had no reason to decrease under the versatile collection of instructors who made the atmosphere at the Medical College. Many of them contributed articles to the current newspapers, among whom Dr. Arthur Peticolas, professor of Anatomy—and devotee of the best literature—wrote editorials for the Richmond Examiner. No less an influence was Charles Bell Gibson, doctor and orator—verbose and romantic in the best Victorian manner—who not only performed surgical wonders but had the power to depict them to his students in words of flaming vigor.

Poetic language was thought to have lost its appeal until Winston Churchill saved Britain by the power of mere words, but it was in the height of its glory when Thackeray visited the Medical College of Virginia and took a seat in the lecture hall directly in front of the young student William H. Taylor. The Old Coroner after half a century still had not lost his impression of that “stalwart gray” man, and his own manner of expression was indelibly stamped with the style of the great literary lion. So it is that his lecture, *Old Days at the Old College*, is seventeen thousand words long. In reducing it to two thousand words, I have sought to retain the original flavor, paraphrasing only because of the time limit set for this report.

DOCTOR TAYLOR SPEAKS

It is now Dr. Taylor himself who speaks:

I take you back to 1854, when I entered the summer school of the Medical College of Virginia and took my seat on the long, hard benches of the lecture room. Medical colleges were then masters of themselves; free from foreign dictation or coercion. There were no laboratories and no trained nurses, no hypodermic syringes and no clinical thermometers, no coal-tar medicines and no antitoxins. The germ

Medical Education of One Hundred Years Ago, Published in the Old Dominion Journal of Medicine and Surgery, Richmond, Virginia. Vol. XVII, No. 2, August 1913.

Read at the annual meeting of the History Section of the Richmond Academy of Medicine, February 14, 1956.

theory of disease was generally regarded as visionary. National fast days as prophylactics against cholera were giving place to burning tar barrels. Calomel was king. Though blood letting was fast passing away, an operation for appendicitis would have been punished as murderous assault. Evolution was usually ridiculed; Darwin had not yet spoken.

I never, while at college, handled a test-tube, nor looked through a microscope, but it is not altogether the grand display of teaching paraphernalia which an institution boasts, nor the elaborately devised schemes of instruction which it flaunts, that counts. Its worth inheres mainly in possessing teachers fully imbued with the learning of their time, and highly capable of conveying this learning to their pupils.

Thought was not sleeping, for the attentive ear could hear "the lark within the songless egg". Science, that majestic Titan, was preparing to go forth and do the mighty deeds and work the portentous changes which this generation sees.

At that time summer school, unlike the regular session, consisted of instruction by lessons and recitations; and the students were of the unanimous opinion that far more was thus learned, and far better assimilated, despite the fact that teaching by lectures was but a survival from the days when there were few books of instruction.

STUDENTS

In my classes were the usual variety of students. Some were staid and sober, some otherwise. We had singers and musicians, particularly a pounder of the banjo, whose rendering of "Aunt Jemina's Sticking Plaster" stirred our very gall-bladders. Then we had the youth with a sweetheart, who was as the pestilence that walketh at noon-day when he captured a victim to listen to his lovesick twaddle. There were all kinds of students, but I must add that they did not try to boss the faculty nor undertake to run the college.

METHOD OF TEACHING AND EXAMINING BOARDS

You are likely of the notion that, because so much more is now taught, the student must be better taught. It is true that his knowledge is greater, but its wide diffusion precludes the possibility of much solidity. In those days, teachers were not obstructed by examining boards, which are a detriment to satisfactory learning. They are instituted for the good of the profession, and are potent agents for keeping the ins in and the outs out. The teacher must subordinate his judgment of what can be most profitably taught to these boards, who do not teach: and, moreover, he

must guess the subject upon which their judgment has fixed as suitable material for their examination, while, he himself, is best qualified to estimate the capacities of his pupil. But this is of no practical value; for, though the teacher can make his pupil a doctor, he cannot make him a practitioner. Only the board can do this. Aesculapius may have planted, Hippocrates may have watered, but it is Tom, Dick and Harry who determine the crop.

CHEMISTRY

Our chemistry course held a peculiar interest for me. It was taught as a display of fireworks, explosions, startling combinations of gorgeous and carefully chosen colors, and abominable smells. We had a teacher, Dr. Martin P. Scott, who held with this prevailing conception of the function of the science. Because of their adaptability, immense use was made of oxygen, hydrogen, phosphorus, and chlorate of potash. We students, in the lecture room, lived in a bright and glorious world, yet a world full of turmoil, spiked with danger.

Liquid tests were demonstrated by the pitcherful. A precipitate was worth looking at. When the professor said a precipitate will now fall, his words had a meaning they do not latterly commonly possess. Into a vase of solution would be poured something less than a quart of precipitant, and the result was grand. The precipitate rolled down like an avalanche amid thunders of applause. It was not only sublime, but beautiful; for special forethought had secured the most striking colors—the gorgeous Prussian blue, the splendid yellow chromate of lead, the flamboyant red iodide of mercury. I have seen the exquisite peach-colored flame of the deadly cyanogen pouring out in billows. I have seen culinary pots and pans burn up; I have seen a twenty-gallon rubber bag swell up to an awesome size, and bust into an ocean of flame—a spectacle of delightful horror! And I have seen the lecture table swept of its whole scientific paraphernalia by premature explosion of a flask of fulminating silver. Such things as shaking down plaster, burning off the professor's whiskers, and imparting a weird green aspect to the universe by the accidental combustion of a peck of red-fire,—such as this, we considered superbly illustrative as well as supremely instructive.

PHYSIOLOGY

By far the most picturesque member of our faculty was Dr. E. Brown-Séquard; and, though his transit across our firmament was rapid, it was brilliant and spectacular. He came to the College with a

great name. In fact, if he was not the most eminent, he was next to the most eminent physiologist of that time.

He was my teacher; yet, reluctantly, I must say he did not teach me anything, due, no doubt, to the inadequacy of the receptacle. During a part of his services, I assisted him in some experiments. My duties were to beguile dogs out of their habitations into the precincts of the College, and to hold cats by the tail while he worked his way into their innards. Some people have affected to make light of these services, envious persons who were not blessed with opportunities of sequestering dogs or holding cats' tails in the cause of science.

His main resource was vivisections, though, he was not a cruel man. He would pat dogs kindly on the back while cutting them up; but he did not let sentiment stifle science. For him, with other assistants, I had soon gathered an innumerable caravan of dogs, cats, raccoons, terrapins, and specimens of nearly every other variety of the inferior forms of animal life, which were quartered in the depths of the college cellar. The stillness of the night, especially, gave the sharp cries and bellowings from below a strange unearthly hideousness that often dampened our scientific zeal; for sound sleep being impossible, our rest was haunted by the impression that we had died and come to our just reward.

Notable too, were the effects of our uproarious zoo upon the colored people of the neighborhood, who, having formerly considered the college a holy temple dedicated to the good of mankind, now avoided it as a place possessed by the Devil. Nothing would persuade them that the ghastly wails omitted from these walls were not partly the yells of demons reveling in human torture, or the lamentations of lost souls, separated from their bodies, seeking peace.

As a thoroughgoing vivisectionist, Dr. Brown-Séquard never announced a self-evident proposition without demonstrating it then and there, before our eyes. But it did seem unnecessary, on pumping a glassful of gastric juice from a hole cut in a live dog's stomach, that he should then put in chunks of bread, and pass it around and require the class to taste and be sure it was acid.

Dr. Brown-Séquard, however, never hesitated to jeopardize himself if he thought, thereby, he could obtain a more satisfactory answer than cats and dogs could give. In studying digestion, he let down into his stomach pieces of sponge tied to the end of strings and fished up material for subjection to the processes of science. This he did so zealously that at length the organ turned him into a sort of cow. His food,

as fast as it went down, came back to be chewed over and over again—a disorder which, it seems, was a source of unspeakable satisfaction to a man of his inquiring spirit. He had created a new and delightful research laboratory all his own.

The latter days of his life found him living in Paris, and I can easily believe that even in his dying hours the old philosopher enjoyed the sublime delight of noting the majestic progress of this his last experiment.

SURGERY

In my student days, there was not the slightest approach to the scenic effects which now make the operating room a place that inspires admiration: none of the impressive displays of ornate metal and glittering glass; no carefully devised scheme of procedure; no array of neat-handed women garbed in spotless white. Our operating room was the middle of the lecture hall—where stood the plain pine table upon which was a mattress over-spread with oil cloth. The lecture desk was utilized to support two or three tin basins containing water, a few towels, and some sponges. The instruments were on the desk. One bucket of water was on the floor for rinsing out the sponges, another was under the table to catch blood.

The victim, brought in and deposited on the table was allowed to brace his nerves by the sight of the knives and saws on the table, and a skeleton which hung beside it. Then the resident students gathered about to assist—an assiduous band, always picturesque and always dingy. And the surgeons did the work.

We knew nothing about asepsis or antisepsis, and indulged in no more than soap and water. As most of the surgeons of the time had been brought up under a system in which anesthesia was unknown, they had learned to work rapidly in order to abridge the patient's sufferings; and they wielded their implements with great dexterity. Under such conditions, you may well think that none of the subjects could survive. But they did. We dared not attempt such astonishing things as Lister has enabled modern surgeons to do, but what was ventured was accomplished with success.

ANESTHESIA

Anesthesia had come in, but was not fully established; the fatal cases had daunted the profession into over-cautiousness, for the very novelty of it made the laity apprehensive. The first administration of general anesthesia I beheld was with intense interest. For you can form no idea of the horror of

a major surgical operation without anesthesia. You of today habitually see extreme alterations wrought upon the human body without sight of conscious pain; but I—I have heard the room above us ring with shrieks of agony that tore my boyish heart.

However, in its beginnings anesthesia, like so many other beneficent inventions, had to be defended against professional perverseness and senseless religious fanaticism. To uphold it, some of its medical defenders were forced into theological dissertations,—proclaiming that God Himself practiced anesthesia when He caused a deep sleep to fall upon Adam before extracting a rib from which to fabricate Eve.

EXAMINATIONS

Our college examinations were not easy. They were conducted in the college, where the faculty met night after night, forming into squads of two or three which occupied separate rooms. The students were called in and delivered into the clutches of each one of them in turn. There was no disposition to cheat, for they were oral.

RESIDENTS

It was customary for designated students to reside at the college buildings to look after the patients in the hospital. They herded in the dispensary, which was a small room on the first floor. The position of resident was very desirable, and I was so fortunate as to obtain it. We usually had a goodly number of patients, for the most part colored, with a few of the humbler class of whites, though we could accommodate an occasional high-class man or woman. The hospital was cleanly, but not at all showy. We had but one nurse, a white man of hermit mien, who attended the males, while the janitor's cook and washerwoman attended the females. The solitary-looking male nurse was not very agile. He never hurried; and when he came to announce to us residents a critical turn in the condition of a patient, he did it in such an apathetic fashion that we commonly found that the patient, meanwhile, had expired.

AN ULCER

We resident students sometimes availed ourselves of an opportunity for a surreptitious test of our own skill. One of us, a sedate, quiet, deep-thinking sort of a person, found among his charges at the hospital an old Irishman who had picked up an ulcer, of a vicious and intractable character, on a sensitive part of his anatomy. Our sedate comrade became convinced that his chief was not sufficiently alive to the gravity of this case; also, I am afraid, that his chief

was not altogether competent to treat it. In the interest of the patient, therefore, the resident determined to take full control himself. And it was his opinion that acid nitrate of mercury was the proper application. So he applied it—rather thoroughly. Now our sample of acid nitrate was very acid, indeed. Thus it came to pass that while we were taking the afternoon doze over our books, we were roused by a series of dreadful howls, which rapidly descended the stairway, traveling in the direction of the yard. We rushed out and found the patient in Marshall Street, very scantily clad, holding the afflicted part with both hands, jumping and roaring frantically, demanding a priest; and, what we thought most curious considering the nature of the malady, calling upon the Holy Virgin to lend a helping hand.

FACULTY CHAIRMAN

In time, becoming a member of the faculty, I gained intimate knowledge of the ways of faculties. What a vivacious lot they were! The clawing and scratching, the roaring and snorting, the gentlemanly damning of one another! It is not possible that a medical faculty has ever been worked down into a homogeneous emulsion. Of the fifty-eight professors who, from first to last, have been members of our faculty, twenty-three, as I figure it, have been variously eliminated: by hypnotic suggestion; by gentle but persistent squeezing; and by a violent banging out.

Shortly after I entered the faculty the office of chairman was created especially for me—formerly the dean had presided. But this honor was not in recognition of my executive ability; nor was it a reward for my sweetness of disposition, although I was the only one with whom everybody else was on speaking terms. The fact is that, being a chemist, I was not in the way of any practitioner; and, as coroner, I meddled with no doctor's patients, till he himself had finished with them.

ENDING

I ask myself in the midst of a century of unprecedented magic, "Where is the world amid which I was educated?" Is it gone—utterly vanished?

But the world remains the same in the midst of change because people remain the same—the same, yet everlastingly different, everlastingly adaptable to change, and everlastingly indestructible. I see this in your young faces, inspiring me with new faith now that my teaching days are done.

For close upon fifty years I have been a teacher. When I review my career I cannot refrain from

declaring that surely no teacher was ever more blessed in his pupils. They have been my companions, and the friends who have most cheered my secluded and not over-joyous life. The kindness and affection they have shown me all along have touched me more deeply than you can ever know. For none but a teacher can fully understand how dear to a teacher's heart is the love of his pupils. And now

that my teaching is ended, take your old teacher's loving benediction, you who spread a sunshine about me that has never died away, but is still brightening my path as I descend into the vale.

*McGuire Clinic—St. Luke's Hospital
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Cardiac Arrest Survival

Patients with sudden unexplained heart stoppage during surgery have a better chance of recovery now than they did five years ago, due to increasing use of new emergency techniques. Drs. Bernard D. Briggs, David B. Sheldon and Henry K. Beecher, Boston, said that cardiac arrest is the major single cause of operating room deaths. Its occurrence has increased, but the chances of survival have also increased, because of immediate diagnosis and treatment.

The rise in the number of cases is due to the current awareness of the problem which leads to more frequent diagnosis, and to the larger number of operations performed on aged or very ill patients. (April 28th Journal of the American Medical Association.) Treatment of cardiac arrest during surgery consists of prompt opening of the chest wall followed by hand massage of the heart, artificial respiration with oxygen, and use of drugs.

The physicians made a study of all cardiac arrest cases at Massachusetts General Hospital, Boston, from 1925 to 1954. There was a steady decrease in the rate of cardiac arrest for the first 20 years of the period, followed by a marked increase in the last decade, particularly in the last five years. The decrease from 1925 to 1944 appeared to be due to improved preoperative preparation of the patient and improved selection and administration of anesthesia. The increase in later years was the "very result"

of these same advances in medical care, since they allowed aged and poor risk patients to come to surgery who in earlier years would have been considered unsuitable. It is in this group that the greatest number of arrests have occurred.

The study of 189,815 surgical procedures showed 35 cases of cardiac arrests from 1925 to 1944 and 100 cases from 1945 to 1954. All of the early cases and half of the 1945-1954 cases resulted in death. Thirty-seven patients between 1945 and 1954 survived, while there were 13 other cases in which heart activity was restored four hours to three weeks.

The survival rate has steadily improved. For the decade 1945-1954 it was 37 per cent, while it was 50 per cent for the last five years of that period.

Factors which appeared to contribute to cardiac arrest included increased age, physical status before surgery, and the existence of heart disease. There was an increase in cardiac arrest for each decade of age beyond the second. For age 20 to 30 there was one stoppage for every 4,358 operations, while in patients 80 years and over the rate was one for every 219 operations, the doctors said.

The incidence of cardiac arrest in patients in poor physical condition was 30 times greater than in those in good condition. Heart disease, present in 60 patients whose hearts stopped, was five times greater in the cardiac arrest group than in the general surgical population of the hospital.

Neurological and Psychiatric Disorders

Some Recent Advances in Therapy

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MEDICINE OWES its great progress to fundamental research, the results of which then become integrated with medical teaching and medical practice. Much of what has occurred recently in the development of new agents to influence neurological and psychiatric disorders has come from basic fundamental research, chiefly from work done by those who understand chemistry, physics, biology in and above a knowledge of anatomy, physiology, pharmacology and pathology. One complements the other although there are many discoveries that have been made from chance observation and then were fully explored and applied. Some of these apply to a number of the more recently developed drugs in the field of neuropsychiatry. At present, the tremendous interest in neurochemistry has provided a terrific stimulus to and impact on the field of psychiatry and for that reason has attracted a great deal of attention. Heretofore, approaching problems in the psychiatric field has been chiefly limited to psychological dynamics until, by chance, it was discovered that alteration of neural metabolic functions, artificially induced, resulted in improvement of conditions which psychiatrists felt were not accessible to them. This came about from the schools of opinion over the centuries that were chiefly concepts regarding the theory of the mind, of mental illness, of emotional disorders without consideration of physical factors.

Freud probably colored the trend of his time and the present time by developing his concept of the unconscious into a complete theory of the mind, of mental illness and its healing. However, the patient who had a neurosis and not a psychosis was best suited to take part in his type of treatment. It soon became evident that other theories or methods must be developed for treatment of the more severe mental disturbances. A fair number of psychiatrists were opposed and still are opposed in spirit to basic Freudian theory, and look upon Freud and psychoanalysis as a theory and science of the unconscious mind rather than a means of curing mental illness. Freud himself prophesied an eventual reversal of

the situation and that history would relegate his methods to the theoretical. His prediction, it appears, may slowly be fulfilled.

First, several developments took place in the past 25 years in the matter of physical treatments for what formerly were considered to be purely emotional disorders. This was somewhat in opposition to basic Freudian theory, even though the theory, more or less had to be accepted as a practical necessity it being the rather faint hope, at times, of helping individuals with mental disorders. The first physical treatment came about by pure accident and not as the result of carefully planned, fundamental basic research when the effects of over dosage of insulin were noted. It was observed that despite the production, by such over dosage, of coma, memory disturbance, confusion and interference, the patient responded in the nature of improved functioning and behavior. Out of it came a means of therapy which made the psychotic patient accessible to a short course of treatment whether psychoanalytical principles were used or not. However, the great and early hope for the results of this accidental application of a tool in treatment never lived up to its expectation.

Then came other means and methods of coma production, first by use of an analeptic such as metrazol and later by electroshock. The latter still seem often to be the best and only therapy for conditions with intense melancholia or acute mania. It has its dangers, both immediate and as residuals, in the form of memory loss or impairment and later appearing convulsive seizures, production of spinal fractures and shoulder dislocations.

The trend in psychiatry and investigative activity in psychiatry presently is toward the chemical concept of mental disorders, psychoses as well as neuroses. This trend has been the result of some outstanding work in neuroanatomy and neurophysiology in reference to the diencephalic-mesencephalic areas of the brain, the region of the hypothalamus, the thalamic nuclei, the amygdaloid bodies and particularly, the

Presented at the Annual Meeting of the Virginia Chapter of the American Academy of General Practice, Hot Springs, March 2-4, 1956.

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ascending and descending reticular core or formation in the midbrain in respect to its relationship to coma, to awareness of the environment, reactions to the environment, alteration of the physiological functions of circulatory regulation and the alerting mechanisms arising from the structures ascending to the cortex. Electrophysiological studies of these areas now seem to point to them as possible sites of origin for such a condition as epilepsy of the so-called centrencephalic type or formerly old idiopathic type. Furthermore, the experimental production of lesions in these areas in animals or observation of humans with lesions in these areas have afforded additional opportunities for attempting to associate function with organic or anatomical locations.

An added impetus was given to this trend by the now rapidly moving and developing field of neurochemistry which has arisen out of basic biochemical, metabolic and pharmacological research.

Not only has the field of psychiatry profited by this new approach but the organic or neurological field has also profited and added to the contributing influences that now seem to be placing psychiatry in a position where it may be facing a phase where many of the old concepts might have to be abandoned.

To be more specific, it might be well to review very briefly some of the factors that have brought about this rapidly developing field. Perhaps one can best state this briefly in recalling that the term "biochemical lesions" was introduced about 25 years ago at a time when actually no proof existed for its reality. It was used in a correct sense, however, in fostering the idea that pathological disturbances in tissues might be initiated by changes in their biochemistry. This in a sense offered hope of rescuing medicine from an empirical status in respect to many disorders. As a result, a more intensive investigation of this aspect of disease was initiated, aided by advances in techniques, the development of the electron and ultra microscope, the ultracentrifuge, tissue analysis, isotope development, in vitro and in vivo studies of cerebral and nervous tissues. These investigations opened up an entirely new avenue of approach to pathological changes in nerve cells, matters of inhibiting or enhancing cellular processes, resuscitation and maintenance of nervous system tissue by improving metabolic functionings. In short, efforts were now being made not only to establish and maintain the state of aliveness of nervous system tissue but later to correlate behavior with alterations of metabolic or biochemical functions of the cells.

By use of differentiated centrifugation techniques,

it has been found possible to separate cellular fractions including mitochondria and other cytoplasmic granules. Quantitative assays then were made possible demonstrating that various enzymatic actions take place in these structures and that the mitochondria contained important elements of the enzyme systems and other biochemically important metabolites. Not only was it found that these primary factors were involved with the important function of cell respiration but that they were also concerned with the synthesis or storage of energy in phosphate bonds. The central position in cellular physiology seemed to be occupied by those minute rod-shaped mitochondria bodies.

These developments then led to a full demonstration of actual "Biochemical lesions", based particularly upon enzyme changes or hypothecated enzyme changes which now could be demonstrated, leading to a change of substituting biochemistry for morbid anatomy.

As recently as twenty-five years ago few in medicine, except for biochemists, believed that enzyme reactions in cells were of much importance in medicine. The first great demonstration of their importance came from the researches upon cholinesterase later proven to be so important for the pharmacology of the nervous system. Later researches led to the association of genetically related factors which seemed to indicate that inherent lack of critical substances, either enzymes or some other defect in metabolism, was responsible for so many of the so-called degenerative diseases of the nervous system or the hereditary-degenerative diseases of the nervous system. The correlation of liver extract in the picture of pernicious anemia and the development of the lack of insulin as a cause for diabetes were actually earlier examples of biochemical deficiencies or lesions responsible for disease.

One can use as a classical example any one of a number of situations that illustrate the point where histopathological changes arising from biochemical lesions are present. We select the classical example of thiamine or vitamin B₁ deficiency. Studies and researches into this problem led up to the important discovery that thiamine or B₁ would cure a condition resulting from a deficiency of B₁ by the understanding of an enzyme system in the nervous system that involved a defective pyruvate oxidase system in neural tissue. When this defect existed it was accompanied by accumulation of pyruvate in the blood, and this is now a clinical test for B₁ deficiency.

Later a similar study arose from research on the action of arsenicals upon the nervous system with

eventual disclosure that arsenicals acted upon the enzyme system by blocking or depressing the oxidation of the pyruvate and alpha-ketoglutarate enzyme systems. An antidote was then developed, dimer-captopropanol or BAL, which would reverse the arsenic effect by freeing a natural enzyme tripeptide glutathione. Yet no thiol could be found capable of doing this until by chemical studies a compound of Lewisite (a trivalent arsenical) with kerateine was developed. This substance would compete more for the arsenical fragment than for the enzyme component, freeing it for its natural metabolic function. When arsenical intoxication occurred the pathological picture showed tissue reactions of edema and inflammatory reactions and yet these changes could be reversed by introducing an antidote compound.

Additional investigations and research showed that the oxidation process in nerve cell metabolism might be inhibited or blocked or enhanced at other stages or steps in the oxidation process. In short, a whole battery of enzymes are necessary to complete the final stages of carbohydrate metabolism so essential to nervous system function and blocking or inhibiting can be competitive with resultant jamming of the oxidation cycle. It also implied that alterations could occur in many ways, by inhibition, enhancing, or competition for enzyme activities. It entered into the explanation of energy releases or faulty energy releases that might explain some of the nervous system disturbances heretofore considered to be due to thinking or, when disturbed thinking does occur, alterations could be brought about by agents that would influence cerebral metabolism much in the same fashion we described the alteration of function from thiamine deficiency or from arsenical effect.

To be more specific, we practitioners do not prescribe sulfonamides with the picture in mind that they act by competing for an enzyme. The entire vitamin B group as well as folic acid, so helpful in anemia, have common basic similarities in their pattern of metabolism. Likewise, organisms have the ability to form enzymes which play important roles in producing tissue damage.

These principles of competitive inhibition are now widely accepted principles and in neurology gained early recognition in respect to the cholinesterase group in the treatment of myasthenia gravis. This group of enzymes also possibly are concerned with nerve transmission processes themselves. It has recently been shown that certain late tissue changes in the nervous system (demyelination of nerve fibers, peripheral as well as in nerve tracts) can under suit-

able conditions be produced by certain selective inhibitors of cholinesterases.

Inasmuch as para aminobenzoate is very essential to the growth and survival of some bacteria, inhibition involved in the utilization of this substrate by the sulfa drugs has become an important matter.

Benzedrine and ephedrine are other examples of preparations that are capable of inhibiting amine oxidase and thereby producing a stimulating effect on the central nervous system. The narcotics produce their effect by inhibiting the oxidative processes of part of the nervous system, especially the cortex. Demerol exerts a powerful effect upon pyruvate and lactate oxidation. The barbiturates likewise inhibit cell respiration or oxidation and are concerned with adenosinetriphosphate, an important metabolite.

One of the most important facts in the multi-enzyme system of nerve cell oxidation or metabolism is that succinic dehydrogenase can supply the succeeding steps of the chain of enzyme reactions with the substance they require for optimal activities. We, therefore, utilize succinate a great deal in treating a number of neurological conditions because of its versatility in the multi-enzyme system and its ability to release energy without analeptic or seizure effect. We use it in acute infectious polyneurotis, radiculitis, radiculomyelitis, the Guillain-Barre syndrome and the early phases of multiple sclerosis or in the early phases of reappearance of multiple sclerosis. We have used it in hundreds of cases and find it a very valuable aid, where this enzyme apparently has a catalytic effect in initiating return of function that may have been inhibited or blocked somewhere along the oxidation enzyme chain. It is given intravenously in 15% solution, 20 cc. for a series of 12 to 15 injections daily and if necessary can be maintained indefinitely but often at less frequent intervals. Commercially, it is available under the name of Soduxin (Brewer and Co., Worcester, Mass.). Care must be taken to dilute the solution with distilled water or normal saline to 15%, and it must be given slowly intravenously to avoid annoying flush reaction.

We have already mentioned that the action of the amphetamine group (benzedrine, dexedrine, desoxyn, etc.) have a high affinity for amine oxidase. Amine oxidase is widely distributed in body tissue, including the adrenals and the central nervous system. It inactivates the adrenergic transmitter and thereby produces a stimulating effect. It is used in such conditions as mild to moderate depressions and in narcolepsy.

Another of the amine oxidases is a catechol amine found in the body as dopamine. It is found in the

urine in increased amounts in patients with pheochromocytoma. Recently this enzyme has been found in the adrenal medulla.

A somewhat similar effect upon the nervous system is observed from newly developed agents, meratran, and ritalin. They differ from other central nervous system stimulants such as the amphetamines, with few exceptions, in that there is no loss of appetite or cardiovascular pressor reactions. It frequently interferes with ability to fall asleep.

Meratran is useful in a number of conditions. Although it was originally developed for the purpose of central nervous system stimulation for mild to moderate depressions, it has been one of the first agents that has offered benefit and even cure for such neurological conditions as torticollis, torsion spasm, dystonia, tics, and tremors. Its action is a highly selective one in the ascending reticular formation, thereby stimulating the cortex in an alerting response in depressions and also stimulating the suppressor systems of the cortex to the muscle units producing relaxation and better control over such disturbing involuntary movements as torticollis, dystonia, and torsion spasm. These conditions have always been open to dispute as to whether they were truly organic or psychogenic. We have treated the dystonias following encephalitis as well as those that we felt might have psychogenic factors in their production. One of our patients is a 9 year old girl with dystonia musculorum deformans for which we have never had any therapy to offer.

Maratran in some of these conditions has a dual benefit. When abnormal involuntary movements such as torticollis or tics or torsion spasms are present, psychiatrists have found that if psychotherapy was effective there was great danger of precipitating a major psychosis in exchange, usually of severe depressive nature and often of suicidal depth. The general experience was one of feeling that it would be better to retain the motor symptoms or disorder in exchange for a severe depression. By using meratran, the dual action avoids the appearance of the severe depression. Furthermore, continuous use of meratran is not necessary if it has had a long period of use. Apparently, new conditioned reflex functioning is set up and the patient can eventually get along without the medication.

Meratran has also been useful in narcolepsy and in Parkinson disease where again elevation of mood is often desired and where we have had numbers of instances where the addition of meratran to such preparations as rabellon, artane, pagitane and others,

has removed the remaining element of tremor once the dosage of the other medication has been established. In this instance, though, continued use is necessary. In acute after effects of encephalitis, meratran has removed blepharospasm, dystonia and torsion spasm in less than four months time in one 14 year old girl who had an acute encephalitis following a rapid sequence of contagious diseases. We have had several cases of severe trismus, one following upper tooth extraction and the other after multiple tooth extractions plus a marked depression. Both have made a very fine recovery.

Perhaps the most dramatic of all of the new drugs that enter into the field of the chemical concept of the psychoses are such preparations as the Rauwolfia group of drugs, thorazine, phenergan, equanil or Miltown, the latter two being the same preparation. In neurology, the Rauwolfia group have been found most helpful in controlling such conditions as classical migraine headache, tension headache, Menieres syndrome and atypical facial neuralgia. Its action in these situations supposedly takes place chiefly through the descending reticular formation although there is also some tranquilizing due to higher center effect in the nervous system. It is felt that better vascular or circulatory control is maintained as the conditions treated presumably are of a discomforting nature because of alterations in the circulatory factors producing the pain. The tranquilizing effect is helpful in reducing the tension-anxiety features so often present in these individuals with worry, apprehension and anticipation. The rigid requirements on personal performance of their perfectionistic tendency is frequently reduced.

The Rauwolfia group have also found application for use in the treatment of pain from malignant growth or metastatic malignant lesions. In several instances of this nature where addiction or dependency upon narcotics had already been established, it has been possible to keep the individual comfortable and without displaying the usual withdrawal symptoms. Among our migraine group of patients we accidentally discovered that a number of them had also been chronic sufferers of colitis, but this information had not been given in the history and came out later by chance remarks of the patients that since they had been relieved of their headaches on the new medicine they no longer had colitis. We have also had several instances of long standing cases of neurodermatitis that had been resistant to combined dermatology and psychiatry therapy but did clear up within four to six weeks on one of the Rauwolfia preparations.

At present, we are finding that thorazine, phenergan, equanil may likewise be of great help in the treatment problem of headache. It has been our experience, though, that they are more effective in the anxiety-tension type rather than in the classical paroxysmal migraine type.

In these situations it is our belief that we are again dealing with biochemical lesions that give rise to alteration of function in structures about the head, gaining physical expressions chiefly in circulatory disturbances, initiated by heavily loaded emotional factors and that the mechanisms set into motion to produce these physical alterations are mediated through the descending reticular formation which has such an intimate relationship with the general hypothalamic area.

Another experience which we have had with the Rauwolfia group in relation to treatment of migraine is that individuals with prodromes or aura of the onset of their headache respond to the abortives such as cafergot, fiornal or any analgesic combination containing a mild sedative, caffeine and an analgesic. Apparently the Rauwolfia preparations provide an enhancing effect for these agents which previously had not been effective.

Rauwolfia effect from a biochemical or metabolic standpoint is due to its ability to release the binding point of serotonin. The brain is much more sensitive to the effects of the Rauwolfia drugs so that about 80% of the stored serotonin is liberated rapidly on relatively low dosages of Rauwolfia preparations. The Rauwolfia preparations are here in competition with an enzyme, monamine oxidase, which under normal conditions is present. Serotonin is present but in a bound form, protected from this enzyme which rapidly destroys free serotonin. The concentration of serotonin interestingly is high in the brain stem and higher in the hypothalamic area than anywhere else. These are the areas in which the reticular formations are located and the centers that have much to do with our emotional reactions. In a sense the Rauwolfia preparations resemble the barbiturates in their action in that they interfere with the oxidase systems.

Serotonin, a war product of research on nerve gas studies, presumably acts at the synapses of nerves. Lack of balance between the systems dealing with the emotions and behavior, therefore, may possibly be the answer to defects or over effects of its influence on the centers responsible for exercising proper emotional control. Adrenergic substances inhibit transmission of nerve impulses at the synapse, whereas cholinergic impulses excite the impulse at

the synapse. Study of cerebral synaptic transmission has established that an adrenergic transmission mechanism is present and operating in brain tissue. Adrenaline, noradrenaline and the so-called adrenaline preservatives produce a synaptic inhibition.

Because of the structural similarity between adrenaline, which occasionally causes mental disturbances in man, and amphetamine, which does so more often, and mescaline, which is a powerful hallucinogen, cerebral synaptic studies have shown that the effects of mescaline are identical with the effects of adrenaline and the amphetamines. It likewise produces a synaptic inhibition.

Additional similarities are noted by comparing the chemical structure of adrenaline, adrenochrome (a possible breakdown product of adrenaline capable of simulating schizophrenia) and other very potent hallucinogens, lysergic acid diethylamide (LSD-25) and serotonin. The latter, serotonin, is suggested as a cerebral metabolite whose deficiency may be responsible for schizophrenia. The similarity between LSD-25 and serotonin is on the basis of the indole ring that they possess in common with adrenochrome through which the series seems to be linked.

Theoretical considerations have been expressed that possibly LSD-25 and serotonin might oppose each other's action on the nervous system. This is actually not the case as has been shown by cerebral synaptic inhibition studies. It happens that serotonin is about 6 to 8 times as potent as LSD-25 and about 25 to 30 times as potent as adrenaline. No real antagonism is found but competition among members can be expected. Because of the extremely high potency of serotonin for synaptic inhibition, however, it hardly would offset the others nor would its deficiency necessarily produce the same type of effects as those from LSD-25.

Because of the high potency of serotonin, in the range of that for acetylcholine on the synapses, its reported natural presence in the brain makes one speculate about its possible role in the natural functions of the nervous system, possibly as a humoral inhibitor.

From the studies made of adrenergic or related cerebral neurochemical substances, it appears as though these disturbed cerebral mechanisms are implicated in the production of hallucinations and that resulting imbalance in the relationship between adrenergic inhibition and cholinergic excitation in the most accessible and sensitive cerebral synapses might be an underlying mechanism in mental disturbance. Individuals act as they do, controlling

rage and fear, carry out impulsive actions or respond to primitive impulses by restrictions acquired through conditioned reflexes, conforming, by the process of learning, to the rules of social, ethical and moral and cultural codes. Presumably these restrictions are applied by a proper balance of adrenergic and cholinergic factors, a neurohumoral or neurochemical control, similar to the automatic control of blood sugar level and oxygen utilization for effective cerebral metabolism, except that this is an established control brought about by many factors.

Other agents which seem to act at the levels or in the areas involved in these control mechanisms are such preparations, other than those already mentioned, as thorazine, phenergan, equanil or Miltown and more recently developed, the gamma isomer of meratran, frenquel. With the exception of the latter, these (thorazine, phenergan, equanil or Miltown) are known as tranquilizers because of their suppressing effect, having unique, selective depressant action at that point of the nervous system where the origins of both divisions of the autonomic nervous system exist and in the general hypothalamic area involved in the neural mechanisms of emotional reactions. They are highly effective in controlling anxiety, tension, agitation, confusion, delirium or hostility occurring in the psychoses and neuroses. Intelligence and memory are not greatly affected by them.

Schizophrenics require less in the way of restraint in their management, excitement in the agitated and paranoid patients is much more easily controlled and the patient made much more accessible to psychotherapy when mutism, negativism, catatonia, overwhelming delusions and hallucinations are present. The management and behavior of the aged, senile individual where agitation, combativeness, excitement and anxiety are present is greatly aided by these newly developed agents. Even in the delirious states, delirium tremens, toxic-exhaustion psychoses, the confusion, hallucinations, and other manifestations disappear quite rapidly.

In the neuroses, equanil or Miltown, thorazine and phenergan, Rauwolfia preparations, meratran and ritalin are also beneficial. In the mixed neuroses, combinations are sometimes used, such as equanil and meratran or dexedrine and equanil or thorazine.

Recently, a new blocking agent, frenquel, has been introduced and is now available. This came about in the recent search for hallucinogens such as LSD-25, mescaline, and now frenquel which produce transient, reversible psychoses, the so-called "model

psychoses." Frenquel is the gamma isomer of meratran. It is an antagonist of central stimulation. In the normal individual, it, like other hallucinogens, produces schizophrenic-like states. It has the ability, however, to block the production of model psychoses induced by LSD-25 and mescaline. In a fair percentage of schizophrenics a very encouraging and gratifying response is obtained and it is also very useful in treating the toxic-exhaustion psychoses of the elderly, such as occur after operative procedure or long febrile, depletion states.

Time does not permit to go into great detail of other equally outstanding advances in therapy in neurology and psychiatry. In brief, the advances in approaching the problem of control of seizures of the epileptic with neurochemical agents again designed to inhibit, compete or influence synaptic transmission should be mentioned. A whole group of drugs are presently undergoing study with one unique approach for one of them, where attempt is made to replace altered or deficient critical enzymes or metabolites that may exist in the epileptic.

We cannot omit mention of the advances attained in the treatment of myasthenia gravis with the introduction of such agents as mestinon and mysuran, mestinon being an improved form of neostigmine and mysuran, being an anticholinesterase agent that has a much longer sustained action than mestinon or neostigmine or prostigmine.

There is presently also a large joint project being conducted for the treatment of multiple sclerosis that warrants some comment in the hopes that isoniazid may provide a blocking agent to whatever is responsible for attacking the myelin sheath of nerve fibers.

Another area in which we are personally concerned is that of advances in treatment for neuromuscular conditions such as muscular dystrophy, progressive muscular atrophy and other neuropathic or myopathic disturbances by attempting to complete the metabolic processes necessary for transfer of available high energy phosphate groups in nerve and muscle disturbances. We have been greatly encouraged by the responses observed on a trial treatment period of a combination of adenosine -3 or 5- monophosphate, commercially available as ironyl or My-B-Den, in conjunction with two other preparations which we think are necessary to carry the reactions out to completion. One of these is not on the market but is prepared for us by one of the pharmaceutical firms. From the work to date, a deficiency state exists in these cases, very often of hereditary or genetic origin, that may be corrected by the agents under con-

sideration but where all three agents are necessary to activate the others.

We cannot conclude without mentioning the role that magnesium plays in such conditions as convulsions due to alcohol, psychoses, or clouded mental states, or coma in cases of prolonged infection or inanition, where convulsions, tremors, muscle twitchings and jerkings often are present. In this group also belongs the individual with delirium tremens. In all of them low blood serum magnesium exists and the administration of magnesium sulphate intravenously or intramuscularly results in a rapid return to a normal state. We also have some evidence that suggests that essential or hereditary tremor may also be related to a magnesium deficiency factor and also in some of the cases of hereditary ataxia or primary ataxia. This latter work is still in the process of investigation.

SUMMARY

New trends in biochemistry, the results of research in neurophysiology and neuroanatomy has set in motion a concerted effort in the field of neurology and psychiatry never approached before. The wider recognition of the importance of intracellular enzyme and other metabolite systems, and ion function, specific inhibiting or enhancing effects in relationship to mental disturbance and overcoming neurological disorders has resulted in a growth of understanding much of what has always been considered part of the mystery disease problems involving neurology and psychiatry. We must guard against over enthusiasm in this stepped up pace of relating biochemical changes with tissue or tissue function changes. It appears as though we are facing a period which holds out a great deal of hope for help in conditions where previously this help was limited or non-existent.

Seamless Synthetic Artery.

A preliminary report on the use of a new seamless synthetic tube for artery grafts has been made by five North Carolina physicians.

Since the first use of grafts to replace sections of damaged arteries the search has continued for the perfect graft material, the doctors said in the (April 21st) Journal of the American Medical Association. The report was made by Drs. Paul W. Sanger, Frederick H. Taylor, Robert E. McCall, Ronald Duchesne, and Gilles Lepage, Charlotte, N. C.

Knitted Orlon and woven nylon have proved satisfactory in many ways, but seams in the tubes created technical problems of sewing through four layers of material where the seams overlapped. Prof. W. E. Shinn of North Carolina State College school of textiles devised a method for knitting Orlon into seamless straight and y-shaped tubes, and John B.

Sidebotham, Philadelphia, has woven seamless nylon tubes.

Both the knitted and woven tubes have been used as grafts in dog and human aortas with equal success, the five doctors said. They and 33 other surgeons have used the grafts successfully in 54 patients.

Only time will show for certain whether the synthetic grafts are superior to anything that has been used to date, but their advantages are many, they said. The grafts are inexpensive, compact, and easily stored, and can be heat-sterilized with no difficulty. They do not stretch lengthwise, but do stretch enough to permit pulsation as in a normal artery. They are nonirritating when placed in the body and are resistant to breakdown and deterioration. The mesh of the knitted tube allows some blood to seep through, clot, and form a natural covering like a new artery around the substitute tube.

Misconceptions In Poliomyelitis

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THERE ARE MANY misconceptions which are prevalent among the medical profession regarding the various phases of poliomyelitis. I wish to call your attention to a few of these.

I—It is an erroneous belief that poliomyelitis is the most crippling of diseases.

In a recent survey, the following facts were revealed¹: for every poliomyelitis patient needing help, there are 160 with heart disease, 75 with arthritis and rheumatism, 25 with mental diseases, 7 with cancer, 6 with cerebral palsy, 4 with tuberculosis, 2.5 with multiple sclerosis, and 2 with muscular dystrophy.

Information from the National Foundation for Infantile Paralysis concerning the incidence of crippling resulting from this disease points out that of every 100 new cases of poliomyelitis in which the disease is definitely and correctly diagnosed, approximately 50 recover completely; 30 are left with some muscle weakness, but not enough to interfere with normal life; 14 have more or less severe paralytic involvement, and 6 die.

Our results with Positive Relaxo-Therapy show progressive improvement in recovery rates. Over a seven year period (1947 to 1954), we had a total of 16 deaths in 414 patients. Further improvement in our clinical management was manifested in 1954, when we had a total of three deaths in 60 patients, and in 1955, when we treated 40 patients with no fatalities. During these periods, only 6 patients were severely handicapped. Of the 6, only one is unable to take care of any of her needs, and 3 are in a rehabilitation center receiving functional training.

Of the total of 474 patients treated between 1947 and 1955, only 17 have to use braces or crutches in order to be up and around in their work or school.

It is apparent that the incidence of crippling in this malady can definitely be reduced under adequate medical management and conscientious nursing care.

II—It has been disproven that poliomyelitis is primarily an anterior horn disease.

Traditional clinical preoccupation with the an-

terior horn of the spinal cord has tended to obscure the clinical significance of involvement of other parts of the neuromuscular systems and of parts of the brain other than the medulla.

Faber², Bodian³, and Howe⁴ emphasize the fact that the symptoms of poliomyelitis are more characteristic of brain stem and cerebral lesions than they are of anterior horn cell pathology.

There is evidence, needing more substantiation, that the virus invades the muscle fibers, producing a myositis, particularly in the area of insertion of the muscle into the tendon. This is said to result in the severe pain and possible interference with anterior horn cell function.

III—It is a misconception that poliomyelitis is not a medical problem.

The diagnostic features of acute poliomyelitis establish this disease as a medical problem. Suspicion is aroused by such acute complaints as fever, headache, sore throat, lassitude, alterations in the bowel habit, muscle tenderness, and stiffness in the neck and back. There also appears the aggravating vascular factor that produces anoxia and degeneration of the neurons, in addition to the poliomyelitic lesions of the motor neurons.

Dubois and Grossioid, at the Third Symposium of the European Association Against Poliomyelitis in September, 1955, stated that in order to prevent deformities resulting from muscular contractures, a varied therapeutic program according to the different phases of paralysis and proper nursing care are essential.

Orthopedic surgical intervention may be necessary in some patients at a later time. We believe that if the patient is adequately treated as a total entity from a medical point of view, and is given proper nursing care, orthopedic intervention can be reduced to a minimum.

IV—Medical opinion is not in agreement that gamma globulin will prevent poliomyelitis in family or any other contacts.

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According to an editorial in the *Journal of Pediatrics*, 1953⁵, "The Office of Defense Mobilization and the National Foundation for Infantile Paralysis are not in agreement concerning the use of gamma globulin in contacts."

The conclusions of the National Advisory Committee for Evaluation⁶ were to the effect that the administration of gamma globulin to familial associates of patients with poliomyelitis had "no significant influence on: 1. the severity of paralysis development in subsequent cases; 2. the proportion of non-paralytic poliomyelitis occurring in subsequent cases in which gamma globulin was given before onset; or 3. the classic pattern of familial aggregation of cases in the country at large."

V—Clinical evidence has not shown that spinal fluid findings are of diagnostic and prognostic value in poliomyelitis.

Following careful analysis of spinal fluids from 95 patients with poliomyelitis, we⁷ came to the following conclusions: 1. The spinal fluid examination in suspected cases of infantile paralysis should not be considered a diagnostic procedure, but rather be performed for differential diagnostic purposes to rule out septic meningeal conditions simulating poliomyelitis; and 2. One cannot correlate the number or type of cells and protein content in the spinal fluid with the type, duration, severity of muscle involvement or outcome of the disease. These conclusions are confirmed by more recent reports from Smith et al⁸ and Stimson⁹.

VI—That tracheotomy is necessary as a prophylactic measure in all types of bulbar poliomyelitis has been challenged.

As Smith⁸ and his colleagues pointed out, "Tracheotomy is a controversial matter in the management of poliomyelitis."

We outlined a list of objections to the use of tracheotomy as follows:¹⁰

1. The bulbar poliomyelitis patient is already weak and devitalized when another burden and fear of tracheotomy are added; the loss of power of speech adds to the apprehensiveness.
2. There is some difficulty in feeding the patient by mouth while the tube is present. Gavage has its dangers of irritation and producing regurgitation of stomach contents into the trachea.
3. Special equipment and nursing care are needed for the administration of humidified air, oxygen, and for suctioning.
4. The return of swallowing with tracheotomy

takes 21 days or more; whereas, with experienced medical and nursing care, the power of swallowing returns within 4 to 7 days in most patients.

5. The medical, respiratory, psychological, and nursing difficulties of adjusting a tracheotomized patient in the respirator are multiplied.

Tracheotomy may be a life-saving procedure in the selected patient who has paralysis of his neck muscles or pharynx, or who has any other physiological obstruction to an adequate airway. Such careful selection will reduce considerably the present day high mortality in the tracheotomized poliomyelitis patients.

VII—There is no basis in the belief that prostigmine and curare are dangerous drugs in any stage of poliomyelitis.

Curare has long been known to cause skeletal muscle relaxation. Its activity is principally at the myoneural junction. Whatever the mechanism of curare, this drug has proven to be safe, simple, and a reliable way to achieve the release of muscle spasm. This conclusion has been confirmed by such investigators as Bennett¹¹, Ransohoff¹², and Paul¹³.

We have emphasized¹⁴ that certain precautions should be observed. First, the drug should be used only by persons familiar with poliomyelitis, and second, the diagnosis must be definite. We also cautioned that curare therapy does not constitute a curative agent. Its value lies in relaxing the rigid muscles in preparation for the special physiotherapy which otherwise cannot possibly be carried out. Following complete muscle relaxation and attainment of full range of motion of all joints, curare is discontinued, and prostigmine is instituted, in order to increase muscle strength¹⁵.

VIII—It is a misconception that "There is no treatment for poliomyelitis".

In our Positive Therapy Program¹⁶ attention is paid to muscle relaxation, stretching and re-education; to the control of blood clotting, petechial hemorrhages and edema in the cord and central nervous system; to nutrition; to capillary resistance; to allay fear and anxiety; to stress situation and the stabilization of metabolism. Our goal is early ambulation, early muscle activity within the limits of tolerance, and encouragement to get well. A brief outline of our program is as follows:

1. Relaxo-Therapy: the sooner an affected muscle resumes its function, the better the chances of recovery. We use Tubocurarine (Tubadil) to relax muscle spasm which limits active

motion and may make passive motion prohibitively painful¹⁷.

2. Hyperproteinization is initiated in the acute stage (Protinal to supplement the regular diet), because muscle metabolism is seriously disturbed. Spasm increases the nutritional requirements of the muscle tissue, and, at the same time, interferes with the circulation. Protein is needed to restore the nitrogenous tissue losses which occur rapidly in the early stages of the disease, and to provide a rich source of globulin-building material to overcome the infection¹⁸.
3. Capillary permeability is increased in poliomyelitis, as a result of infection or toxemia, with resultant petechial hemorrhage in the central nervous system and cord. A combination of Vitamin P and Vitamin C (Hesper-C) is given routinely to aid the body to repair this complication and hasten convalescence¹⁹.
4. The inflammation in the cord and central nervous system, with edema, is treated with pure crystalline trypsin in sesame oil (Parenzyme) given intramuscularly. We have consistently observed the apparent arrest of paralysis within 48 hours with Parenzyme treatment²⁰.
5. To increase the resistance of the patient to the stress of the infection and to stabilize metabolism, we utilize adrenocortical steroids (Panone)¹⁶. Anoxia and hypoxia are combated by the early and generous use of the oxygen tent and supportive therapy.
6. The anxiety tension state in poliomyelitis patients is reasonably controlled by the use of a dioxolane compound (Dimethylane), which has tranquilizing and muscle relaxing properties²¹.

The above therapeutic program relieves, corrects, and prevents pathophysiologic changes. Hospitalization and complications have been reduced by our Positive Therapy Program. These results are possible of duplication by any physician following the same program of medical management.

CONCLUSIONS

The attack on the misconceptions in poliomyelitis has commenced as a result of the united efforts of research and medical advances. We believe that everything we have offered here possesses the force of demonstrable facts.

Should our presentation stimulate inquiries and possible debate, and prove to be provocative of fur-

ther and more exact research, we feel our mission will have been justified and not in vain.

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Cardinal Principles of Plastic Surgery

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IN ORDER to accurately define plastic surgery we must visualize a branch of general surgery which encompasses all the surgical specialties and deals with the correction of deformities. It is a form of sculpture in which living tissues are used to improve form and function and occasionally to relieve pain.

A thorough knowledge of wound healing is the backbone of plastic surgery, hence the care of wounds is of utmost importance. For no longer is it necessary to wait for granulation tissue to develop in a grossly contaminated wound before closure. The scope of plastic surgery has been greatly extended by the wide spectrum antibiotics, and today we can excise contaminated wounds and close them without fear of spreading infection. We know that to wait for wounds to close by secondary intention is to invite the formation of scar, and our prime objective is to promote wound healing with a minimum of scar formation. We, therefore, attempt to convert open wounds to closed wounds as soon as practicable.

The techniques of plastic surgery are time consuming and very exacting. The finest needles and suture materials are employed, and tissues must be handled with the greatest respect in order to minimize the formation of scar. Tension in a wound leads to ischemia and necrosis with excess fibrous tissue as the by-product. To eliminate tension we use multiple fine buried sutures in the subcutaneous tissues, and prior to closure wound margins are widely undermined in order to facilitate closure of the wound with as little tension as possible. The planning of incisions is of great importance. An incision made within the wrinkle lines or parallel to the lines of skin tension heals with the least amount of scar. We are familiar with the unsightly scars that result when incisions are made across flexion creases. These scars become thickest where there is the greatest amount of motion. Notable examples of these scars are the longitudinal scars of the neck, the antecubital space, and wrist.

Time is of the utmost importance in the care of scars. Generally speaking, a scar does not reach

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maturity from a clinical standpoint for six months from the time of injury. Often a scar that is thick and indurated at three months becomes soft and pliable at six months. No scar should be revised until this maturation is reached. In certain races this resolution is never reached, and we have the development of the keloid or hypertrophic scar. These scars behave very much like neoplasms, and there is an over production of scar tissue.

Diagnosis in plastic surgery is of major importance, and since most procedures are of elective nature the surgeon has ample time to study and interpret the deformity. It is necessary to accurately determine which tissues are missing, which are in excess, and what the tissue derangements are.

After an accurate diagnosis has been established, the surgeon should be able to map out the entire reconstructive program step by step. Extensive reconstructive procedures are done in multiple stages in order to develop an adequate blood supply to support each stage of the procedure. In the correction of any deformity the use of local tissues is ideal. These are utilized in the form of simple advancement flaps or rotation flaps. It is essential that the replacement tissues match the surrounding tissues in color, texture, and hairiness. Occasionally because of local scarring it is unwise to employ local flaps for closure, and we have to rely on tissues from a distance to fill the defect. These are used in the form of pedicle flaps or free skin grafts.

Pedicle flaps are ideal for coverage since they contain all the elements of the skin plus the underlying subcutaneous fat. However, the use of pedicle flaps demands a protracted hospital stay since no flap can be moved or divided until the blood supply through its pedicle or through its recipient site is sufficient to nourish the flap. We are, therefore, forced to elevate flaps of any magnitude in stages in order to stimulate the development of blood vessels in the pedicle or hinge of the flap. Once a flap has been transferred into a defect it generally requires a minimum of twenty-one days before the pedicle of the flap can be divided.

Pedicle flaps are classified as simple or open flaps and tubed flaps. Tubed flaps are ideal since they leave no raw surface exposed thereby eliminating

chronic infection with excessive scar formation. Tubed flaps can be made longer than open flaps since the blood supply is greatly augmented by tubing. The use of flaps is generally indicated in the resurfacing of highly scarred areas, in areas where underlying bone or tendon is exposed, and when resurfacing weight-bearing areas. It is a safe working rule in the construction of a flap to never outline a flap that is longer than three times its width. However, if a major artery and an efferent vein are included in the pedicle, a flap can be constructed that is four or five times as long as it is wide. This principle is utilized in the formation of the thoracoepigastric tube and will be demonstrated later.

In 1938 the invention of the Padgett dermatome greatly facilitated the removal of the split thickness skin graft. By its use large sheets of skin of uniform thickness can be removed with ease. Consequently the split graft has gained considerable impetus. The split thickness graft has the advantage of taking well on granulation tissue and its donor site heals spontaneously. A full thickness graft demands closer attention to detail during its application, but it gives a better cosmetic result than the split graft since it contracts less and maintains a softer texture. However, it is very susceptible to infection, can only be used on freshly created wounds, and its donor site requires surgical closure.

The dressing of the skin graft is of the greatest importance. Probably the most frequent cause for loss of skin grafts is improper and inadequate immobilization. We know that the split graft and whole thickness graft depend upon extracellular fluid for nourishment during the first few days. Anything that disturbs the relationship of the raw surface of the graft to its underlying bed is detrimental. Hence a firm constant pressure dressing is mandatory. This is accomplished by the so-called bolus or stent dressing. After all suturing has been completed the ends of the sutures are left long and tied over a pressure dressing. This type of dressing is used on areas where the application of constant pressure is impossible.

Occasionally in badly burned individuals where donor sites are at a premium it is essential to get wound coverage as soon as the wounds are ready without regard for the appearance. In these cases use of the stamp graft is indicated. This type of graft is merely a small split graft obtained by cutting a dermatome graft into squares. This graft can be placed directly on granulation tissue with reasonable certainty of a successful take. The removal and application of these grafts is facilitated by Webster's

method of backing the dermatome with pliofilm. The graft is then easily cut into pieces of the desired size and applied without the skin curling up on itself. The small deep graft or pinch graft has little place in the field of plastic surgery since they produce unsightly pebbled wounds, and their donor sites are equally as unattractive.

As previously mentioned all plastic surgery is very exacting in its techniques. The use of fine sutures alone militates against speed. Frequently we have as many as three or four operative fields prepared and draped in a single procedure. Each of these wounds has to be closed either by direct approximation or skin grafting. Generally speaking our dressings are large and they often demand as long as three-quarters of an hour for application. We rely on multiple buried sutures to take the tension off the skin closure in order to get fine scars, and this in itself is very tedious and time consuming. Therefore it is virtually impossible to complete any plastic procedure with the rapidity so often seen in abdominal surgery.

The plastic surgeon is called upon to treat extensive neoplasms of nearly every part of the body. It is our feeling that he should be responsible for the resection as well as reconstructing the resulting deformity. Often measures can be taken at the time of the destructive procedure to reduce the subsequent deformity. For an example, when a partial resection of the jaw is performed as part of an "all out" procedure for oral cancer, if the remaining fragment of mandible is fixed by intermaxillary wiring or Kirschner wires, the marked shifting of tissues towards the resected side is prevented. Following resection of a carcinoma of the buccal mucous membrane there is often a large raw area remaining. The simple expedient of applying a thin split graft greatly reduces the contraction that results if the wound is allowed to heal by granulation. The magnitude of any resection for cancer can be extended to its utmost, since wound closure is never foremost in the reconstructive surgeon's thoughts.

It is not possible in this brief presentation to adequately define the scope of plastic surgery. Since Board requirements demand a thorough background in general surgery, the so-called cosmetic surgeon has fortunately been driven from our ranks. And today the reconstructive surgeon is called upon to treat ailments ranging from the top of the head to the soles of the feet. The acutely burned patient is no longer looked upon solely as a problem in fluid and electrolyte physiology. The surgeon who cares for these individuals recognizes the necessity of early

wound coverage and physiologic positioning of the involved member in order to eliminate the severe deformities that develop if the wound is allowed to assume a position of secondary importance.

This philosophy of treating the condition as an entity is also apparent in the treatment of the injured hand. No longer are the various specialists conscripted for the care of the mutilated hand. The man who takes on a seriously injured hand has his work well defined. He must be prepared to handle any type of injury with which he is faced, be it orthopedic, neurosurgical or reconstructive in nature. However, the basic requirement in the treatment of all extensive hand injuries is good soft tissue coverage. Following adequate healing of the soft tissues, the surgeon can then correct injuries of nerve, bone and tendon in that order. A hand with an open wound that is intractably slow in healing will eventually end up a stiff, worthless claw. The number of moving parts per square centimeter is very high in the hand. We, therefore, cannot afford much swelling and scar formation or the gear system of the fingers becomes incorporated in a dense mass of scar and the individual finger movements are lost. Early wound coverage is mandatory in hand injuries to eliminate the sequelae of scar formation. It is therefore obvious that we cannot successfully handle this serious problem without some knowledge of the basic principles of plastic surgery.

Fortunately we are slowly getting away from doing primary tendon repairs on injuries in the critical zone of the palm—that is, between the distal flexor crease in the palm and the proximal interphalangeal

joint. This zone is occupied by the proximal pulley of the finger and is barely large enough to permit two normal tendons to glide through it. Any attempt at repair in this zone is generally doomed to failure since the suture line swells and becomes adherent to the parietal sheath lining the tunnel. This type of injury is best handled by primary closure of the wound and after the reaction of injury has subsided a free tendon graft can be inserted from palm to finger tip. The rationale behind this is that both suture lines lie outside of the pulley system and there is less chance of adherence. We generally use the Palmaris Longus tendon as the graft. If this tendon is absent, as it is in sixteen per cent of the population, we use the Flexor Digitorum Sublimis or one of the toe extensors.

In closing, I want to emphasize that plastic surgery is merely a specialized form of general surgery. And like all surgery, success in this field depends upon the careful observation of the principles of general surgery. There is no other surgical specialty that demands such close attention to detail. The necessity of careful planning of the reconstructive program cannot be stressed too much. Since some procedures require multiple operations and several years of work, the patient should always be adequately informed before embarking on an elaborate program. For some deformities simply cannot be suitably corrected, and it might be kinder to recommend a prosthesis or no surgery at all.

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Pathology Coverage in Virginia

Edgar J. Fisher, Director of the Virginia Council on Health and Medical Care advises that during the latter part of 1954 and into 1955, the Council conducted a study to determine where medical technologists were located and where additional technologists were needed. This study was made at the request of the Virginia Society of Medical Technologists and with the knowledge and "blessing" of the

Virginia Society for Pathology. It gave the Virginia Society for Pathology an opportunity to observe the Virginia Council in action and to see the type of results that could be achieved through the Council's teamwork approach. It is encouraging to note that all facilities which participated in the study have some type of coverage although it is not considered adequate in all cases.

Leiomyoma of the Ovary

Report of a Case

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PURE LEIOMYOMATA of the ovary are extremely rare and a search of the world literature has revealed only a scanty amount of information regarding these neoplasms occurring in the ovary. The author wishes to report an additional case of a pure leiomyomata of the ovary, with review of world literature.

CASE HISTORY—L.S., Medical College of Virginia (St. Philip Division), case # B-19-59-36 was a 36 year old colored hotel maid complaining of metrorrhagia of 2 years duration. She would menstruate 3 days at a time instead of her usual 4 and use 6 pads instead of her usual 3, passing half dollar size dark clots. She had yellow leucorrhea 3 days before each period. There was no dysmenorrhea. She volunteered that her stomach had been getting slowly larger during the past 4 years, and that she had an occasional low backache, unrelated to her menstrual period or physical activity.

Catamenia began at age 12, occurred every 28 days and lasted 4 days, until 2 years ago. There was no history of any pregnancy. The past history is irrelevant. There was no family history of carcinoma or tumors.

G.U. System was negative except for nocturia 2 or 3 times a night during the past 6 months.

The patient had occasional swelling of the ankles but not so bad that she could not get her shoes on, the swelling being worse toward evening.

Before and during a menstrual period, she would have right sided parietal headaches.

Sixteen months before admission to the hospital, the patient was examined for a job at a tobacco company and at that time no pelvic examination was made by the examining doctor. The first knowledge of her having a pelvic tumor was when she was called to work several weeks later and a pelvic done by the plant examining doctor revealed a tumor of the uterus. She was told she could not go to work until the tumor was removed.

FAMILY HISTORY: Non-contributory.

Examination of the patient on July 11, 1954, revealed a well developed and well nourished colored woman who appeared to be her age of 36. The

abnormal findings were limited to her pelvis. Vaginal examination showed a solid tumor that filled the posterior cul-de-sac continuous with the uterus, filling the entire pelvis to about one inch above the umbilicus. There was also a firm projection in the right fornix that appeared to be rather hard and at that time was considered to be probably calcified. The diagnosis at that time was multiple fibroid tumors of the uterus. It was also felt at the time of examination that the mobility of the uterus was limited by adhesions.

On July 28, 1954, the author operated on the patient at St. Philip Hospital, Division of the Medical College of Virginia, and found her to have multiple fibroids of the uterus, chronic pelvic inflammatory disease and a solid tumor of the left ovary. The pelvic adhesions were lysed, bilateral salpingo-oophorectomy and a supracervical hysterectomy was done. A total abdominal hysterectomy was not done because of technical difficulty in removing the entire uterus.

The uterus was studded with multiple fibroid tumors which extended to about 2.5 centimeters above the umbilicus. There was a 7.5 centimeter fibroid that came off the anterior surface of the cervix. A 9 centimeter fibroid came off the posterior aspect of the lower uterine segment. Other multiple fibroids that varied in size from 2.5 to about 7 centimeters in diameter covered the entire uterus. The ileum was attached firmly to the right side of the uterus and the right ovary for about 7 centimeters. There were several adhesions between the omentum and the uterus, and also adhesions between the sigmoid and the posterior aspect of the uterus. Both fallopian tubes appeared to be retort shaped. The left ovary seemed to contain a solid tumor about 7 centimeters in diameter. The right ovary was bound down firmly by sheets of adhesions.

TISSUE EXAMINATION BY THE SURGICAL PATHOLOGY DEPARTMENT OF THE MEDICAL COLLEGE OF VIRGINIA. SURGICAL PATHOLOGY NUMBER S-54-5572

GROSS DESCRIPTION: The uterus measures 20 cm. in length and 14 in width and 14 in thickness. It is greatly misshapen due to the presence of nu-

merous leiomyomata. These range in size from less than 1 cm. up to as large as 10 cm. in diameter. The uterine cavity is somewhat distorted. The endometrium is fairly smooth and shows a few petechial hemorrhages that range in size from 1 to 4 mm. The cervix has apparently been amputated. The leiomyomata are located in all three locations, that is submucous, intramural and subserous. Some are pedunculated. The right ovary is somewhat flattened and measures 5 cm. in length, 3 in width and 1 in thickness. The tube, which is attached, measures 5 cm. in length. It measures 1 cm. in diameter at the proximal end and about 1.5 cm. in diameter at the fimbriated end. The left ovary is greatly enlarged and measures 7 cm. in length, 4 in width and 4 in thickness, and at one point there is a cyst which is filled with blood and which measures 2 cm. in diameter. The wall is about 1 mm. in thickness. It contains clotted blood. At one point in the ovary there is a spherical tumor mass which is 4 cm. in diameter and has the appearance of leiomyoma. The cut surface shows interlacing whorls of connective tissue. The tube is 10 cm. in length and

1 cm. in diameter at the proximal end and 1.5 cm. in diameter at the fimbriated end. At the fimbriated end there are located two small cysts which are translucent and filled with clear fluid. One is 1 cm. in diameter and the other is 1.5 cm. in diameter.

MICROSCOPIC DESCRIPTION: The cervix is not included in the specimen. Examination of the section of the uterine wall shows endometrium in the early luteal phase with a somewhat loose stroma and rounded stromal nuclei. The glands are fairly tortuous and the nuclei of the glandular epithelium are located centrally. There are globules of secretion in the cells and in the lumina of the glands. Examination of the spherical tumor masses shows that all of those located in the uterus are composed of interlacing whorls of fibrous tissue and smooth muscle. It is also noted that there are small foci of lymphocytes in the endometrial stroma. Both ovaries show a number of small cysts which are lined with granulosa cells to a depth of 4 to 6 cells. These are follicle cysts. Both fallopian tubes show an increase in the submucosal fibrous tissue. Small foci of lymphocytes are occasionally seen in the sub-

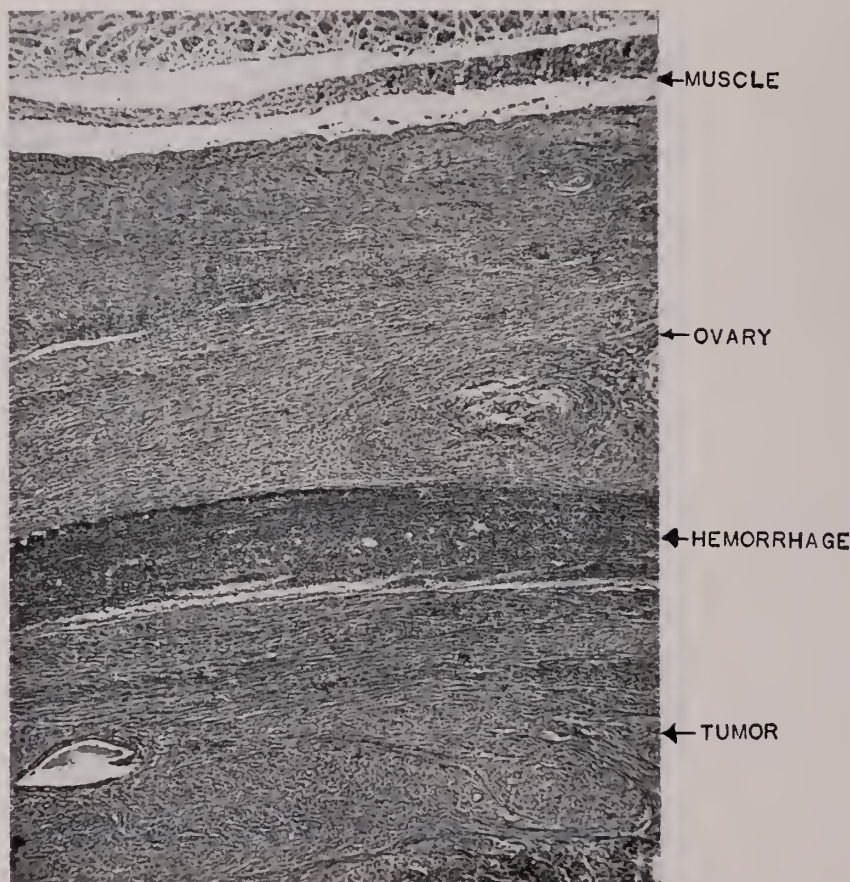


Fig. 1—Low power view of ovarian tumor. X 50. There is a narrow zone of hemorrhage between ovary and tumor. The tumor is within ovarian stroma.

mucosa and muscular layers. One of the small cysts located at the fimbriated end of the left tube is lined with cuboidal cells. The other with low columnar epithelium. These are cysts of the parovarium. The blood filled cysts are lined with a layer of fibrous tissue on top of the lutein cells. This is a corpus lutein cyst. The spherical tumor mass found in the left ovary is composed of interlacing bundles of connective tissue and smooth muscle. A trichrome stain shows that the bundles are composed of smooth muscle and fibrous tissue without a doubt. A fat stain fails to show any fat in the cells. The tumor is therefore proved to be a leiomyoma.

- PATHOLOGICAL DIAGNOSIS:**
- Leiomyoma (multiple) of the uterus.
 - Chronic endometritis.
 - Follicle cysts of the ovary, bilateral.
 - Chronic salpingitis, bilateral.
 - Cyst of parovarian, left (multiple).
 - Corpus lutein cyst of ovary, left.
 - Leiomyoma of the ovary, left.

SAUL KAY, M.D.

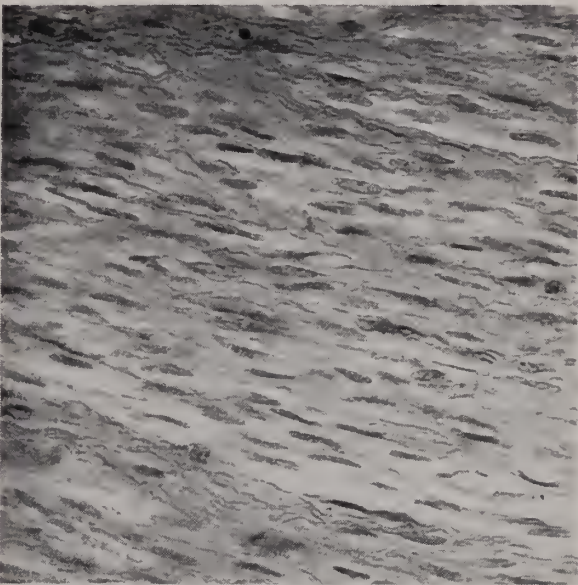


Fig. 2—High power view showing palisading of smooth muscle cells. X500

SPECIAL NOTE BY AUTHOR: The pathologist did not recognize that the tumor of the left ovary was a rare primary leiomyoma until microscopic sections were made. Therefore no photograph was made of the fresh gross specimen. After the specimen was fixed, it was accidentally discarded in moving the Surgical Pathology Department to a different location in the Medical College of Virginia, so no photograph could be made of the fixed specimen.

A description of this case including slides was sent to the Ovarian Registry and Dr. Emil Novak's¹⁸ report was "no doubt as to the correctness of the diagnosis primary leiomyoma of the ovary."

FREQUENCY: In the entire world literature, nineteen cases of pure leiomyomata have been reported.¹ In about 40% of the cases this tumor has been associated with fibromyomata of the uterus. In Mauthners² Series of 682 ovarian tumors occurring at the Pelham Clinic in Vienna, there were three cases of fibromyoma, and none of them were pure leiomyomata.

A review of all of the pathological specimens in the Surgical Pathology Laboratory at The Medical College of Virginia, from 1950 to 1955, revealed 232 ovarian tumors. Follicle, lutein, germinal inclusion, hyperplasia of ovarian hilus cells of ovary and endometrial cysts not actually considered as tumors and also metastatic tumors were not included. The case herein reported was the only incidence of a leiomyoma.

TABLE I

TUMORS OF THE OVARY	
Based on Novak's Classification	
August, 1950 to October 25, 1955—at the Medical College of Virginia Hospitals	
BENIGN TUMORS	
1—Cystic	Total
(A) Neoplastic	
Pseudomucinous cystadenoma of ovary	37
Serous cystadenoma—ovary	40
Teratoid cyst	65
	142
2—Solid	
(A) Papilloma	2
Fibroma	21
(B) Brenner Tumors	10
(C) Leiomyoma—ovary	1
	34
MALIGNANT TUMORS	
1—Carcinoma	
(A) Primary solid carcinoma	20
	20
(B) Cystic Carcinoma	
Serous papillary cystadenocarcinoma	9
Dermoid cyst, malignant	1
Pseudomucinous cystadenocarcinoma	2
	12
EMBRYONIC OR DYSONTOGENETIC	
1—Granulosa cell tumor	4
2—Thecoma	18
3—Dysgerminoma	2
	24
Total number of benign and malignant tumors at the Medical College of Virginia Hospitals	
	232

There has been only one case of leiomyoma of the

ovary in the past 5 years in 232 tumors of the ovary, an obvious incidence of approximately 0.4% but actually this incidence would be less if previous years were included in this report.

AGE: These tumors are found in the single woman as well as the married ones, and they have appeared in multips as well as nullips. They have been described in ages ranging from the twenty-second to the fifty-second year,³ and are most common between the thirtieth and fortieth year.

RELATION TO PREGNANCY: Pregnancies that preceded the surgery on these tumors did not seem to alter their development. Kleitsman,³ Moore,⁴ Ols-hausen⁵ and Brachetto-Brian⁶ reported cases of leiomyomata of the ovary complicating pregnancy.

SYMPTOMS: The symptomatology is that of any firm tumor of the ovary and is never characteristic. The preoperative final diagnosis is practically impossible. Menstrual aberrations were not constant. Metrorrhagias were noted off and on. The leiomyoma did not cause pain unless adhesions occurred, or the size of the tumor was excessive. Adhesions to the intestines and epiploia were rather frequent. In the case reported by Masse, Dax and Carles,¹ the small intestine was fistulized in one of the cystic pouches.

EVOLUTION AND PROGNOSIS: Generally, the evolution of these tumors is benign,⁷ and are slow in growth. They can bring forth complication, however, such as ascites with peritoneal irritation, torsion of the pedicle, etc. These tumors can undergo cystic, myxomatous, calcific, or osteogenic formation. Masse, *et al*,¹ state that in a review of the world literature only one case of a malignant degeneration, namely a leiomyosarcoma of the ovary has been described.

The therapy of the leiomyoma of the ovary is exclusively surgery. The removal of these tumors usually is rather simple. However, in the presence of adhesions, and possible fistulae, an intestinal resection may even be necessary in order to remove the whole tumor. In the menopausal age, a complete hysterectomy and bilateral salpingo-oophorectomy should always be performed.

PATHOLOGICAL ANATOMY: The tumor is always unilateral, and in most instances, it does not have a capsule separating it from the rest of the ovary. Sangalli, Lechi and Ortheman¹⁹ have described tumors the size of an orange. Some have described these tumors as being of the size of an adult human head. Herbut⁸ reported a case with a tumor that

was 25 centimeters in diameter. They are ovoid, egg-shaped or even spherical, having a smooth or nodular surface. The consistency is hard, solid, occasionally elastic, and the center may show signs of cystic degeneration. The majority of these tumors have a pedicle and are movable. The cut surface is either pink or white, and usually presents whorl formation. The muscle bundles are delicate in their form and Masson and Van Gieson's stains leave no doubt as to the presence of smooth muscle cells. A trichrome stain accentuates the smooth muscle bundles conclusively.

ETIOLOGY: The histiogenesis of the ovarian leiomyoma is not completely understood, and there has been a great deal of controversy in regard to this subject. Hyrtl⁹ has revealed that the parenchyma of the ovary consists of a connective tissue stroma, rich in blood vessels and muscle bundles. Ostrogradskaja¹⁰ states that these muscle bundles were rare in small children, but were quite prevalent in women of child-bearing age, and especially during pregnancy. He believes that these muscle fibers arise from the utero-ovarian ligament.

Wallart¹¹ studies have also revealed smooth muscle fibers in the utero-ovarian ligament. These fibers run to neighboring blood vessels. Perhaps it is by coursing alongside of these vessels that they made their appearance in the intervascular layers in the hilus and medullary substance of the ovary. Smooth muscle is not present in the cortex of the ovary.

Basso,¹² Heurotin¹³ and Herzog believe that the smooth muscle in the ovary originates from the media of the blood vessels of the ovary. They demonstrated that the ovarian vessels often contain no adventitia and the muscle bundles of the media were occasionally increased in size.

What causes these muscle bundles to undergo neoplastic tendencies? According to Borst¹⁴ perhaps chronic inflammation and an associated hyper-vascularization could be the stimulating agent of these tumors. Martella¹⁵ established also the hypertrophy and increase of smooth muscle of the ovary in chronic inflammation. However, the most feasible stimulant seems to be hormonal. Myomata of the ovary have only been found in sexually mature women with but one exception and that is the case of Godlewski.¹⁶ However, the information as to how long the tumor existed before operation is missing. In the climacteric and during pregnancy, there is a decrease in the formation of smooth muscle. Grohe¹⁷ demonstrated that an increase of the uterus, which is believed to be intimately associated with hyperestro-

genism, is present in about 40% of the cases of smooth muscle tumors of the ovary.

SUMMARY

Another case report of a pure leiomyoma of the ovary has been presented bringing the total number in the world literature to 20. A discussion of the pertinent facts concerning all the present day knowledge in regard to leiomyomata of the ovaries has been summarized.

ACKNOWLEDGMENT

The author thanks Dr. Saul Kay, Head of the Department of Surgical Pathology of The Medical College of Virginia for his description of the microscopic pathology of the case reported; Drs. Count Gibson, Joao Santos, Constantin Saleba and Jose M. Magan, all of the Medical College of Virginia for aid in translating the German, Portuguese, French and Spanish articles; and sincere thanks to Mr. Melvin Shaffer for the microphotography.

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Myleran in Leukemia

A relatively new drug, which can be taken orally by patients at home, has been found useful in treating one form of leukemia. The drug, Myleran (trade name), was given to 10 patients with the granulocytic type of leukemia, a blood disease in which there is an enormous increase in the number of white cells.

John W. Frost, M.D., Philadelphia, and Capt. Carmault B. Jackson, Jr. (MC), U.S.A.F. made the report in the May 5 Journal of the American Medical Association. They said Myleran has several advantages over the usual x-ray therapy, including its ease of administration without requiring daily trips to the doctor's office, its apparent freedom from undesirable side effects, and its safety. The drug is

also relatively inexpensive.

All the patients showed improvement, including a distinct feeling of well-being and an increase in appetite and strength within a short time after starting treatment. A gradual decrease in the total number of white cells occurred in from 20 to 50 days in all patients. Other signs of improvement included reduction in size and tenderness of the spleen and lymph nodes. There was also a rise in the level of hemoglobin in nine patients.

In three patients treatment continued until the disease activity apparently ceased, and was restarted only when relapse was evident. In the other seven patients lower maintenance doses were continued.

Drug Eruptions

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IN THE every day practice of medicine, the physician today delves into a therapeutic armamentarium of widely divergent and potent drugs. He is constantly confronted with the problem of recognizing and managing the side effects of these drugs and particularly with the eruptions they produce. Because these eruptions may resemble many common cutaneous diseases and unrecognized persistence in the administration of the particular drug may end in severe sequelae, a knowledge of the diagnostic clinical features of drug eruptions is important. These eruptions are not only very common but are of almost limitless variety representing nearly all the cutaneous lesions that can be described. Clinicians formerly used to call Syphilis and Tuberculosis the great imitators of disease. Today this statement can be amplified to include drugs. A drug reaction can imitate not only any Dermatologic entity but also involve other tissues and organs such as the nervous system, blood cells, liver, arteries etc. It seems important therefore to discuss some of the allergic principles, methods of diagnosis, clinical manifestations of drug reactions and to review some of the specific drugs that are commonly employed today.

ALLERGIC PRINCIPLES

1. Minute amounts of a drug which have been well tolerated for weeks or years may suddenly produce severe reactions.



Fig. 1.—Phenobarbital eruption simulating measles.

2. Once such an eruption has occurred, it is likely to recur upon subsequent minute re-exposure to the drug.
3. Drugs which are entirely different pharmacologically often produce identical skin eruptions, for example, urticaria from penicillin and urticaria from salicylates. Moreover, the same drug is capable of producing entirely different reactions in the same individual, for example, a sulfonamide producing purpura and a sulfonamide producing a scarlatiniform eruption.
4. Cross sensitivity reactions to chemically related drugs are common.
5. An allergic reaction is acquired only by exposure, requiring an incubation period, varying from a few days to weeks. It is not a spontaneous event.
6. Drugs may produce two reactions—an allergic one or a toxic reaction. The toxic type is related to dose (quantity) for example, the toxic effects of lead (lead poisoning).
7. Allergic reactions to drugs include the following: dermatitis, asthma, serum sickness, bone marrow depression, liver damage, etc.

METHODS OF DIAGNOSIS

The diagnosis of a drug eruption very often is a challenge as there are no definitely specific features. The following are helpful:

1. History
2. Clinical picture
3. Course-improvement on withdrawal and flare on reexposure.



Fig. 2.—Erythema multiforme due to phenolphthalein.

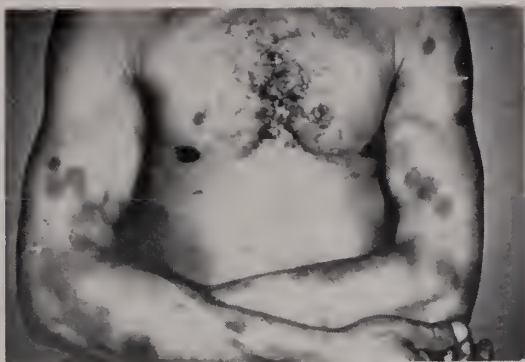


Fig. 3.—A "fixed" pigmented eruption due to arsenic. Note the macular plaques.



Fig. 4.—Arsenical keratosis of feet.

4. Cutaneous tests are of little value. They may be falsely positive or falsely negative.

What are the difficulties? The absence of a history of exposure to a drug means little. It may have been forgotten, unnoticed or there may be a cross sensitivity to another drug. It is a never ending task to know under what disguises drugs are likely to be encountered. For example, phenolphthalein is present as the red color in many candies. Iodides and bromides are in cough mixtures, nerve tonics, "asthma cures", iodized salt, sea food¹. Arsenic is in myriads of substances, in insecticides, in sprays on our fruits and vegetables that we eat. Thus a painstaking history is necessary in finding the clue to a drug eruption.

The clinical picture may produce nearly all dermatological lesions. We may see vascular reactions such as erythema, urticaria, erythema nodosum, scarlatiniform, morbilliform, purpura, and pigmented lesions. We may find granulomatous reactions, ulcerations, furunculoid, and acneform eruptions. We may even have eczematous reactions and



Fig. 5.—Vesicular "ids" due to penicillin—more common in underlying fungus disease.



Fig. 6.—Erythema multiforme bullosum due to "666" which contains antipyrine. Note the conjunctivitis, erosions of the face, and macules of the body.

generalized exfoliations. A few examples are seen in the illustrations.

CHARACTERISTICS OF SOME COMMONLY USED DRUGS

Penicillin. The incidence of allergic reaction generally is between five and ten per cent. The most common reaction is an urticaria and serum sickness-like reaction occurring one to three weeks after initial use. Other eruptions are vesicular "ids" of the hands and feet, stomatitis, scarlatiniform eruption, and rarely exfoliative dermatitis. There is a relation between penicillin sensitivity and fungous disease, as those people with prior existing fungous disease are more prone to develop penicillin sensitivity. This is explained by cross sensitivity to the fungi and penicillin which is also a mold or fungus. There is also a striking incidence in men, roughly seventy-five per cent of cases occurring in men. This fact parallels the high incidence of fungous infections in men². Although patients with positive skin tests are more likely to be allergic to penicillin than those with negative tests, the accuracy is insufficient for clinical use. Desensitization may be accomplished in some cases.

Sulfonamides. Incidence of reaction about five per cent. The most common reaction is a scarlatini-

form one. Other reactions are purpura, erythema multiforme, erythema nodosum and drug fever. Other toxic symptoms such as kidney damage and leukopenia are common.

Streptomycin. Toxic erythema, exfoliative dermatitis, urticaria, stomatitis, toxic effects on eighth nerve.

Aureomycin and Terramycin. Pruritus ani, moniliasis, urticaria, "fixed" drug eruption.

Barbiturates. Urticaria, morbilliform eruptions, bullous eruptions, erythema multiforme, stomatitis.

Iodides and Bromides. Acneform eruptions, furuncles, pustules, granulomas especially on the legs, bullous lesions some of which are fatal as well as vascular reactions.

Phenolphthalein. "Fixed" pigmented eruptions, erosions of the mouth and genitalia, bullous eruptions.

Salicylates. Erythemas, urticaria, bullous eruptions. Salicylates fortunately have a low incidence of reaction.

Antihistamines. May cause multiforme erythemas and bullous eruptions.

Belladonna. Scarlatiniform, erythemas, purpura.

TREATMENT

The diagnosis and recognition of a drug eruption is the single most important measure as discontinuance of the drug makes recovery possible. When this

has been done simple measures are usually all that is needed. In the milder drug eruptions the use of antihistamines internally and locally bland antipruritic lotions usually suffice. In severe drug eruptions for example, the severe angioneurotic edema and serum sickness reaction to penicillin, the use of Cortisone and ACTH are very valuable.

In general there are few specific antidotes to drugs but there are some in which chemical antidotes are used. In iodides and bromide eruptions large doses of salt (NaCl) are given as the chloride ion displaces the iodide or bromide ion. Another specific is B.A.L. (British anti-lewisite) which is used in gold intoxication.

SUMMARY

A discussion of the allergic factors underlying drug eruptions has been presented along with diagnostic features and treatment.

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"Alcohol Pain"

Pain following a drink of beer or other alcohol now has been added to the thousands of unusual telltale signs which help doctors to diagnose diseases. Three Minnesota doctors report that four patients with Hodgkin's disease suffered severe pain in the arms, chest, neck, shoulder, or low back within five minutes after taking any kind of alcoholic drink.

The report by Drs. John O. Godden, O. Theron Clagett, and Howard A. Anderson of the Mayo Clinic and Foundation, Rochester, was made in the April 14th Journal of the American Medical Association.

Hodgkin's disease is a normally painless but progressive enlargement of the lymph nodes, spleen, and general lymphoid tissue, which often begins in

the neck and spreads over the body. In their four patients the pain appeared almost immediately after a few swallows of alcohol. Neither the type of drink nor the amount consumed influenced the pain. The patients described it as "paralyzing," "dragging," and "an achy numb feeling." The pain lasted from 15 or 20 minutes to three hours in the various patients.

The doctors noted at least 15 other reports of pain among Hodgkin's disease patients following the drinking of alcohol. They agreed with other physicians who feel that "alcohol pain" is one good test for persons suspected of having Hodgkin's disease, and for detecting recurrences among treated patients. It also could be used to evaluate results of treatment.

Tinea Capitis Infections In Virginia

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TINEA CAPITIS infections in the United States are predominantly caused by the species of dermatophyte, *Microsporum audouini*^{1,2,3,4}, with other species of *Microsporum* and *Trichophyton* producing the small residuum of cases.

Recently Georg⁵ has surveyed the situation in this country and has indicated that *Trichophyton tonsurans* infections are on the increase, particularly in the Southwestern states. According to her figures as high as 20 per cent of the cases occurring in certain areas of Texas are due to this species of *Trichophyton*. An increasing incidence of *T. tonsurans* infections have likewise been reported by Pipkin⁶ from Texas and by Price and Taylor⁷ from California.

Although relatively unknown in this country until recently, *T. tonsurans* infections are common in Puerto Rico, Mexico and Central America^{8,9} where it has been endemic for years. Georg⁵ believes it likely that this type of infection may be spreading from those countries and certainly the increased incidence in certain geographic areas tends to bear this out.

From an epidemiological point of view, it is of

cultural results obtained by us from tinea capitis infections coming to the dermatology clinic of the Medical College of Virginia. During this period 977 specimens were cultured. Of this number 733 (75.02%) were positive for dermatophytic fungi, 103 (10.54%) of the specimens were contaminated and thus were considered unsatisfactory for cultural diagnosis and 141 (14.32%) were negative. During the year 1955 actidione was added to the culture media which contained both penicillin and streptomycin. As a probable result of this addition the number of contaminated cultures was considerably reduced over the figures for previous years.

The 733 positive specimens were divided according to year isolated and species as indicated in Table 1. The high incidence of *M. audouini* infections (89.90%) confirms the results found by others in this country in tinea capitis infections. Over the five year period the average incidence of *M. canis* and *T. tonsurans* infections is similar. However, it is interesting to note the increasing incidence of *T. tonsurans* infections during the past two years. This is in conformity with the observations of Georg⁵

TABLE I
FUNGUS SPECIES CAUSING TINEA CAPITIS INFECTION IN VIRGINIA

SPECIES	1951		1952		1953		1954		1955	
	Number	%	Number	%	Number	%	Number	%	Number	%
M. audouini.....	70	93.33	99	90.00	132	89.18	181	89.60	177	89.39
M. canis.....	2	2.66	7	6.36	11	7.43	8	3.96	3	1.51
M. gypseum.....	2	2.66	1	0.91	3	2.02	3	1.48	2	1.01
T. tonsurans.....	1	1.33	3	2.72	2	1.35	10	4.95	16	8.08
Total.....	75	.....	110	.....	148	.....	202	.....	198	.....

interest to know if the apparent increase in incidence of this species is becoming general throughout this country. In addition, since *T. tonsurans* infections occur not only in children, but also in adults, are most difficult to detect and are relatively resistant to therapy, a knowledge of the incidence in a given area is of considerable value to the dermatologist.

During the past five years we have recorded the

and indicates a further spread of this type of infection to other parts of this country.

SUMMARY

Cultural studies over a five year period indicate that tinea capitis infections occurring in Virginia patients are caused predominantly by *M. audouini*.

However, it appears that during the past two years the increasing incidence of *T. tonsurans* noted in the Southwestern states by Georg and others is also

From the Department of Microbiology, Medical College of Virginia, Richmond, Virginia.

occurring in Virginia and probably indicates a widening geographic distribution of this species of dermatophytes.

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Stuttering

Stuttering is a personality defect rather than a speech defect, and treatment must be aimed at the underlying emotional difficulties. In a signed editorial in the April 28th Journal of the American Medical Association, Dr. Smiley Blanton of the American Foundation of Religion and Psychiatry said there are three functions of speech: expressing emotions, adjusting to other people, and expressing ideas.

Stuttering is a blocking of a person's ability to adjust to other people, arising from anxiety in meeting various social situations. Stutterers usually can talk to themselves, to animals, and often to people with whom they are friendly, but not in situations where fear and anxiety are aroused.

Studies have been made to show that there is some organic cause of stuttering, but no positive evidence has been found that nervous or physical deformities cause stuttering, except in occasional cases. Another theory offered, but not accepted by most investigators, is that stuttering springs from making a left-handed child write with the right hand.

Dr. Blanton said there are about 600 speech sounds

in languages of the world. The baby in his babble stages uses hundreds of these sounds, but when he begins to speak, he must exclude all the sounds except about 56 which are used in the English language. Stutterers seem to fail to make this exclusion.

The treatment of the stutterer consists of building up his confidence, giving him loving attention and teaching him to adjust to groups. It is helpful for the child to receive speech training, but some of the results obtained in classes may be due more to the loving attention the child gets than to the treatment itself. In the case of the very young child who stutters, there is need for a reorganization of the family life so that he will receive the right amount and kind of love and affection so as to develop a sense of security.

"There is no short cut to the treatment of stuttering. When stuttering persists on into adolescence and adulthood, the person's whole personality is involved and not just the speech organs. He must be trained to understand himself and to learn to adjust to other people without fear and without tension."

JOSEPH E. BARRETT, M.D.
Commissioner, Department Mental Hygiene and Hospitals

Who Are the Patients in Our Mental Hospitals?

NOTE: This is the fifth in a series of statistical articles prepared by the Department's Statistician. This article will show the age and type of admissions to the hospitals with Charts which will give a graphic picture of these characteristics. It is hoped that this will give valuable information to the medical profession in Virginia.

JOSEPH E. BARRETT, M.D.,
Commissioner

In previous articles in this series an explanation of the characteristics of patients resident in the four Virginia State Mental Hospitals as of June 30, 1955, has been shown. In order to make the picture more complete regarding characteristics of persons needing treatment in the Mental Hospitals, the admissions also enter into the picture.

For the fiscal year ending June 30, 1955, there were 2,276 first admissions and 1,510 readmissions to the four hospitals, making a total of 3,786 patients admitted. There is some difference in the ages and diagnostic distribution between the first and readmissions. The first admissions have more of the aged than readmissions and the readmissions have more of the functional psychoses and alcoholics.

During the year 629 (27.7%) of the first admis-

sions were 65 years of age and over, while 164 (11%) of the readmissions were in this age group. (Charts I and II) This, however, makes a total of 793 aged patients; an average of slightly over two aged patients admitted each day of the year. As there is an average of about ten patients admitted each day, one of every five is 65 years of age or over.

The ages of 45-64 have about the same distribution in both the first and readmissions. Ages under 45 have a larger number in readmissions than first admissions. These readmissions are primarily made up of the functional psychoses group and the alcoholics.

Charts III and IV show the distribution by diagnoses of the first and readmissions. In the first admissions the senile-arteriosclerotic group numbers 634 (28.7%). (These include the aged group.) The next largest group is the functional psychoses group—552 patients (23.8%)—and the alcoholics third with 380 (16.6%) patients. The readmissions have 117 (7.8%) patients in the senile-arteriosclerotic group, which is one of the smaller groups. The functional psychoses group, however, is nearly half of the readmissions—692 (46.5%) of the 1,510 readmissions. The alcoholics number 327 patients (21.5%).

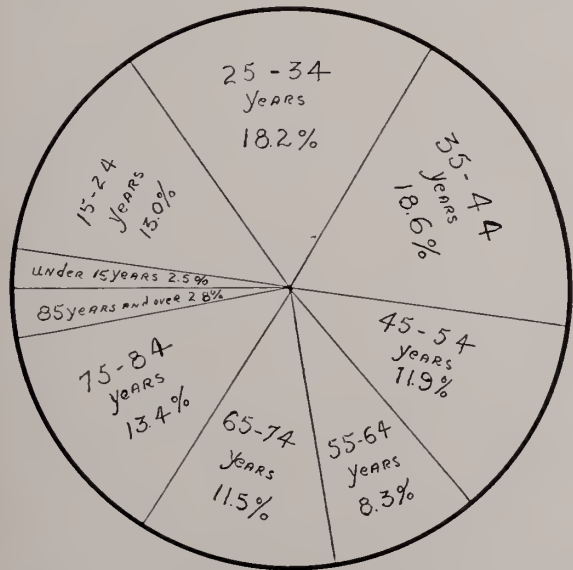


CHART NO. I—Percentage distribution of ages of first admissions to Virginia's four mental hospitals for the year ending June 30, 1955.

Contributed by EDNA M. LANTZ, Statistician, Department Mental Hygiene and Hospitals.

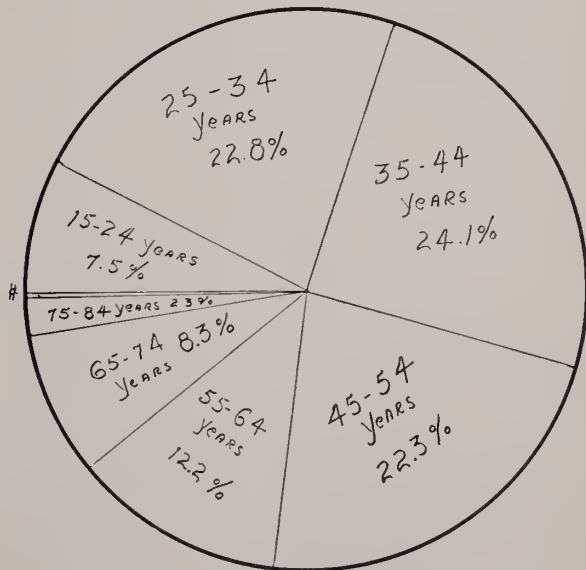


CHART NO. II—Percentage distribution of ages of readmissions to Virginia's four mental hospitals for the year ending June 30, 1955. § Under 15 years, 0.1%; 85 years and over 0.4%.

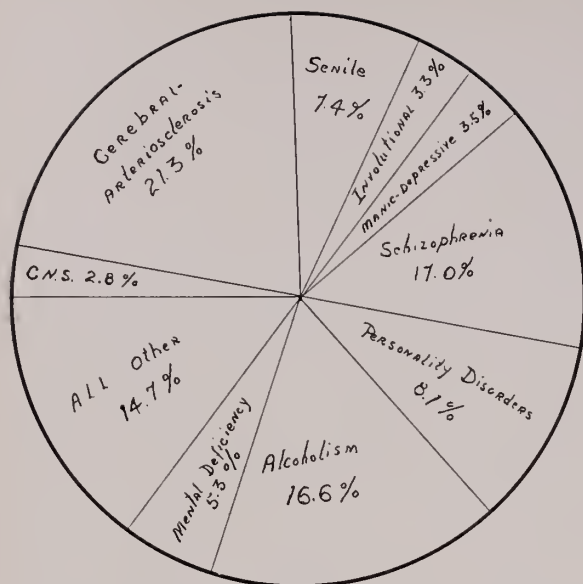


CHART NO. III—Percentage distribution of diagnostic groups of first admissions to Virginia's four mental hospitals for the year ending June 30, 1955.

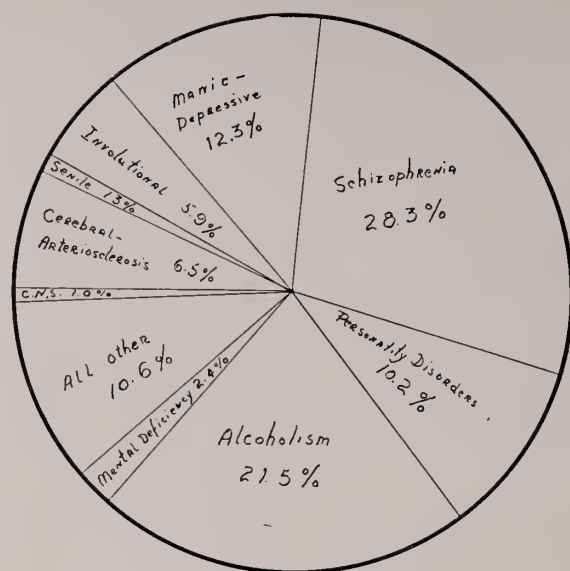


CHART NO. IV—Percentage distribution of diagnostic groups of readmissions to Virginia's four mental hospitals for the year ending June 30, 1955.

In summarizing the effect of these various characteristics of admissions on the hospital administration, the aged create a nursing problem because of their physical capacities; also a housing problem. Most of the hospitals are not constructed to properly house aged persons. The alcoholics create a problem because they occupy time of personnel so badly needed for treatment of the psychiatric patients.

The functional psychoses group respond in a degree to treatment and many are released as improved condition. This group, however, has a high rate of return, thus their high proportion of the readmissions. Those not released become, as shown in previous articles, the build-up of long term patients. There seems to be two areas that need extending in relation to this functional psychoses group—

viz: follow-up and research. There is a possibility that many of the releases would not have to return if follow-up and supportive help after they leave the hospital could be available. The need is a staff of psychiatric social workers to work with released patients in their homes and communities, helping them to adjust and re-establish themselves.

Research in more or less permanent effective treatment of the functional psychoses is needed. If more money was spent in research and effective treatment methods could be found for lasting results, eventually this would be more economical than the long time care of many such patients.

The next and last article in this series will be in regard to the type of patient that is discharged.

Cousins May Marry

A medical consultant has contradicted the notion that all cousins who marry will have defective children.

In a query to the Journal of the American Medical Association, a physician asked if it would be wise for a girl to marry her second cousin—the grandson of her father's brother.

The unnamed consultant said in the May 12 Journal that it would be all right—if the ancestry on both sides for three generations was sound physically, intellectually and emotionally.

The danger to any offspring of a marriage between cousins of sound ancestry would not be much greater than if the parents were unrelated.

MACK I. SHANHOLTZ, M.D.
State Health Commissioner of Virginia

Poliomyelitis Vaccine Production

Approximately a year ago approval of poliomyelitis vaccine by the Federal Government had to be suspended and, at the same time, public confidence in the safety of the vaccine was placed in serious jeopardy. Today, through cooperation of government agencies and the manufacturers of the vaccine, a steady flow of vaccine that is both safe and effective is reaching the public.

The present Congress has extended the Poliomyelitis Vaccination Assistance Act of 1955 and this legislation has been approved by the President (Public Law 411, 84th Congress, 2nd Session). In considering this extension, the chief question was the availability of safe and effective vaccine. The Surgeon General of the Public Health Service, Dr. Leonard A. Scheele, furnished to the committee considering the matter facts and figures dealing with use of the vaccine, populations in age groups, and the approximate amount of vaccine that might become available for use. The last figures, Dr. Scheele cautioned, were subject to many contingencies.

To obtain a first-hand impression and better appreciation of the complexities of the manufacture and testing of Salk vaccine, the Congressional Committee accepted the invitation of Eli Lilly and Company, of Indianapolis, Indiana, to visit their plants and laboratories. Thirteen members of the committee visited the Company's facilities on February 24 and 25, 1956. The Eli Lilly and Company was one of two manufacturers whose vaccine was used in the field trials conducted by the National Foundation for Infantile Paralysis in 1954. During 1955 and the first six weeks of 1956, almost 24 million cc's of Lilly vaccine were approved by the Federal Government, which was approximately 70% of the total supply of vaccine approved during that period.

This on-the-spot observation of the manufacture of Salk vaccine gave the committee some insight into reasons why it is not a simple matter to step up production. The greatest problem in expanding operations is to obtain trained personnel.

In spite of anticipated increase in production, all manufacturers caution that unforeseen delays may occur, thereby causing the output of vaccine to fall below the goal that has been set.

The State Health Department is in accord with the report by the National Advisory Committee which states that "while the committee appreciates the desire of the American People to see that ample supplies of vaccine will become available in time to complete present vaccination programs on schedule, the committee is deeply impressed with the complexities of the manufacturing and testing processes involved in the making of the vaccine." The committee further expresses its confidence that "each of the companies will produce the maximum amount of vaccine that can be produced with reasonable assurance of safety."

The State Health Department anticipates that after those children who were given the vaccine in mass inoculations under the N.F.I.P. program will have received their third or booster doses, there will be less demand for quantities of vaccine at one time. Therefore, having issued the greater part of vaccine needed to complete these immunizations, the Poliomyelitis Advisory Committee was requested to consider an extension of the group eligible to receive the vaccine. The committee after hearing the amount of vaccine on hand, the quantity that had been received during the past six weeks, and the estimate of what will be immediately needed, unanimously voted to extend eligibility to children in the age group eleven through fourteen years (i.e. up to their fifteenth birthdays) and to pregnant women. Those now eligible for the vaccine are children one through fourteen years and pregnant women. This includes children in the age groups most susceptible to poliomyelitis. While pregnant women are no more susceptible than other adults, they seem to contract the disease in a more severe form if they get it. Approximately 300,000 additional persons have become eligible to receive at least two doses of Salk poliomyelitis vaccine before the season at which the peak in the number of cases is usually reached.

MONTHLY REPORT OF BUREAU OF
COMMUNICABLE DISEASE

	April 1956	April 1955	Jan.- Apr. 1956	Jan.- Apr. 1955
Brucellosis	0	0	5	6
Diphtheria	2	3	17	11
Infec. Hepatitis	45	129	210	603
Measles	6175	659	12875	1928
Meningococcal Infec.	8	16	34	48
Meningitis (Other)	3	--	30	--
Poliomyelitis	1	1	5	8
Rabies (In Animals)	30	38	157	195
Rocky Mt. Sp. Fever	1	1	4	3
Streptococcal Infec.	732	768	2708	3560
Eularemia	1	0	5	5
Typhoid Fever	5	3	7	16

Treatment of Parkinsonism Symptoms

A new procedure of injecting chemicals into one part of the brain has been successful in restoring some "shaking palsy" victims to more normal life. The new method, called chemopallidectomy, was used on 125 Parkinsonism patients, with good results in 70 per cent of the cases, Drs. Irving S. Cooper, Nicholas Poloukhine and Aldo Morello said in the April 28th Journal of the American Medical Association.

The procedure relieves the uncontrollable tremor and muscle rigidity of Parkinson's disease (also called "shaking palsy") and related disorders without impairing the ability to move. Some patients, who had been completely or nearly helpless, could walk, care for themselves, and even work after treatment.

Chemopallidectomy consists of destroying a region in the globus pallidus, which lies in front of the thalamus. When the globus pallidus is diseased, it contributes actively to the development of tremor and rigidity. Procaine, injected into the area through a tube inserted into the brain, immediately relieves tremor and rigidity in the limbs. Later, alcohol is injected into the globus pallidus to complete the operation.

Of the first 50 patients undergoing chemopallidectomy one and a half to two and a half years ago, 65 per cent had good lasting results. Four procedures were unsuccessful, with two resulting in

death.

Chemopallidectomy grew out of a preliminary procedure used to select patients for a brain operation to relieve tremor and rigidity. 30 of 50 patients undergoing this surgery had good or excellent results. Twelve of the operations were failures (five for technical reasons), three patients developed paralysis, and five died. Short-term difficulties were noticed in some other patients.

The surgical procedure involves cutting through the side of the skull and placing silver clips on the anterior choroidal artery, which is thought to supply blood to the globus pallidus. The clips cut off the blood supply.

Further efforts to improve both techniques, to improve selection of patients, and to lessen the risks of the operations are justified on the basis of experience with their patients. Further study may also lead to a better understanding of the physiology of the disease.

Dr. Cooper is on the staffs of the departments of neurologic surgery at New York University-Bellevue Medical Center and St. Barnabas Hospital, while Dr. Poloukhine is on the staff of St. Barnabas Hospital. Dr. Morello is a fellow in neurologic surgery at New York University. The study was supported by grants from the Allen and Josephine Green Foundation and the William Harkness Hale Foundation.

Woman's Auxiliary . . .

President Mrs. M. W. Glover, Arlington
President-Elect Mrs. Lee S. Liggan, Irvington
Vice-Presidents Mrs. Charles A. Easley, Danville
 Mrs. C. C. Hatfield, Saltville
 Mrs. John St. George, Portsmouth
Recording Secretary..... Mrs. J. R. Grinels, Richmond
Corresponding Secretary Mrs. Robert Detwiler, Arlington
Treasurer..... Mrs. William Grizzard, Petersburg
Publication Chairman
 Mrs. William J. Weaver, Alexandria

Alexandria.

A Card Party and Fashion Show was held on March 9 at the George Mason Hotel in Alexandria. Mrs. Robert H. Anderson, Ways and Means Chairman was in charge of the event. Assisting her were: Mrs. John Ransmeier, Mrs. Glenn Thompson, Mrs. Lewis Mangus, Mrs. John Zearfoss and Mrs. Preston Titus.

A handsome collection of dresses provided by the Vivianne Shop in Alexandria were modeled by Mrs. Robert Syme, Mrs. C. E. Arnette, Mrs. James Masterson, Mrs. Christopher Murphy, Mrs. James Gilbert, Mrs. Eugene Grether, Mrs. James Mills, Mrs. James Moss, Mrs. James Moriarity and Mrs. William Yeung. Mrs. William J. Weaver was commentator for the fashion show. Door prizes were provided by the local merchants and dessert and coffee were served in the interval between the show and the card party. The event was judged a success and a profit of \$120.00 was added to the treasury.

It was with sorrow that the auxiliary learned of the death of Doris DeFord Speck, wife of Dr. George Speck. Mrs. Speck died March 7 after a long illness. In her memory the auxiliary made a gift to the Doris DeFord Speck Memorial Fund through the American Cancer Society.

The Seventh Annual Northern Virginia Clinic Day originated by the Alexandria Medical Society was this year for the first time sponsored jointly by the Alexandria, Arlington and Fairfax Medical Societies. The auxiliaries to these three societies assisted with the arrangements. Alexandria auxiliary was in charge of the cocktail party which followed the clinical session. Mrs. James Gilbert was chairman, assisted by Mrs. Daniel Yuter and committee.

A joint luncheon was held with the Arlington and Fairfax County auxiliaries at the George Mason Hotel. Mrs. Preston Titus was in charge of arrangements assisted by Mrs. James Gilbert. Mrs. William Weaver, president of Alexandria auxiliary presided.

Mrs. M. W. Glover, State President, and Mrs. Lee S. Liggan, State President-Elect were present.

FRANCES MILLS
Publicity Chairman

Richmond.

March and April have been busy and interesting months for the members of this Auxiliary. At the March 27th luncheon, Dr. Geoffrey Mann showed slides that were of particular interest in his "medical detective" work. At the April meeting Mrs. Gertrude Aronson gave some very amusing readings, after which the entire Auxiliary was invited to a Pink Tea and Fashion Show, given by the Dental Auxiliary.

Fashion and drama were combined at the Tea on Friday, April 27th, which was held at the Tuckahoe Woman's Club, for the benefit of Sheltering Arms Hospital. As a result, a check for \$1500 will soon be given to the hospital. Mrs. Gilman Tyler was chairman, with Mrs. George Ritchie serving as her co-chairman. Feature of the program, arranged by Mrs. William Grigg and the Richmond Drama Workshop, was the presentation of Oscar Wilde's "The Importance of Being Earnest" in modern fashions. Between each of the three brief acts, were fashion tableaux by Thalhimers. Committee chairmen for the Tea were: Mrs. Heth Owen and Mrs. William Moncure, Tickets; Mrs. Grigg, Entertainment; Mrs. William Morrisette, Flowers; Mrs. Fleming Gill, Arrangements; Mrs. Richard Baylor, Refreshments; Mrs. James R. Grinels, hostesses; and Mrs. Carl W. Meador, publicity.

MARGARET M. MEADOR.

Tazewell.

The Auxiliary to the Tazewell County Medical Society met April 20th at the River Jack Restaurant in North Tazewell.

Mrs. Rufus Brittain, president-elect, presided over the luncheon meeting in the absence of the president, Mrs. David Wayne.

Plans were made to observe Doctor's Day on June 10th. Members of the Auxiliary will entertain their husbands with a buffet dinner at Hillcrest, the home of Dr. and Mrs. H. A. Porter of Bramwell, West Virginia.

ELIZABETH BERRY
Publicity.

Fairfax.

The Auxiliary to the Fairfax County Medical Society met on April 3rd at the Court House Country Club.

After our usual luncheon chances were sold on a seafood serving bowl, and Mrs. E. C. Day held the lucky number. Our main business of the day was to elect officers for the coming year. By a unanimous vote the following slate of officers were elected: Mrs. Emanuel Newman as president, Mrs. Acors Thompson as president-elect, Mrs. Gordon Zimmerman as recording secretary, Mrs. Frank Klune as corresponding secretary, and Mrs. C. C. Cooper as treasurer. They were properly installed by Mrs. Peter Soyster, our parliamentarian.

Each member was given 5 charter membership cards for the Fairfax Hospital Association. We were asked to sell them by April 15th and turn in the money collected.

Plans were announced for a bridge luncheon on May 1st at the Court House Country Club, the profit from which will be turned over to the Fairfax Hospital Association.

Mrs. Emanuel Newman is to be commended for her efficient management of registering the doctors on Clinic Day, observed April 8th at the Wakefield High School. Assisting her were Mrs. Acors Thompson, Mrs. Carl Parker, Mrs. Gordon Zimmerman, Mrs. Gerard Inguagiato, Mrs. Lawrence Jacklin, Mrs. Henry Kulesher, Mrs. Edward Day, Mrs. Peter Soyster, Mrs. Frank Klune, Mrs. George Roarke, Mrs. Andrew Tessitore, Mrs. Nelson Podolnick, Mrs. Wesley Bernhart, Mrs. Edmundo Morales, Mrs. T. B. McCord, Mrs. C. C. Cooper, Mrs. Thomas Haggerty and Mrs. Ardwin Barsanti.

MARGARET BERNHART.

Northampton-Accomac.

The auxiliary held its Spring meeting on April 10th at the home of Mrs. J. L. DeCormis at Accomac, with an attendance of twenty-eight. Mrs. M. W. Glover, Arlington, State President, and Mrs. Lee S. Liggan, Irving, State President-Elect, were guests. The meeting opened with a most enjoyable social hour and dessert course.

The auxiliary was complimented on its 96 per cent membership for Today's Health. A discussion followed on what percentage of our homes are prepared for an enemy attack. Mrs. Wayne Mears reported on nurse recruitment and said that six prospective nurses had spent the week-end at the Nurses Home and this apparently proved very successful. Mrs. W. J. Sturgis and Mrs. W. T. Green reported that the Grace Wilkins Holland Memorial Room in the hospital was in need of blankets and it was noted that these be furnished. Mrs. John R. Mapp reported on the health and problems of the migrant laborers in the counties and insurance was discussed.

The July meeting of this auxiliary will be held at the cottage of Mrs. W. C. Henderson, Wilkins Beach, with Mrs. Holland Trower as hostess.

CATHERINE R. TROWER

Chairman, Press and Publicity

Warwick-Newport News.

Attendance pins have been awarded to sixteen members of the Newport News High School's Future Nurses Club and twenty-four members of the Warwick High School's Glee Club. These pins are given for having attended 75 per cent of the group's meetings. These two groups are sponsored by the Auxiliary.

ANNUAL MEETING THE MEDICAL SOCIETY OF VIRGINIA ROANOKE, OCTOBER 14-17, 1956

Current Currents

FORD FOUNDATION TO AID MEDICAL SCHOOLS: As a stimulant to voluntary support of medical schools, the Ford Foundation has appropriated \$10 million to "match" unrestricted contributions through the National Fund for Medical Education. Grants will be made on a matching basis over a five-ten year period with a maximum limit in any one year of two million dollars.

Last year the National Fund, which distributes monies raised by the American Medical Education Foundation along with contributions from industry and the general public, received \$2,147,000 in unearmarked funds for distribution to the nation's medical schools. Of this amount, \$422,812 came from the medical profession through the AMEF. Under the Ford Foundation formula, if these receipts are of equal magnitude in 1956, a Ford grant totaling 70 percent of this amount, or \$1,503,486, would be made. All contributions in excess of the 1955 total would be matched dollar for dollar, subject to the annual maximum of two million dollars.

This should provide an extra incentive for all physicians to contribute to the AMEF.

THE U.S. CHAMBER OF COMMERCE, during its recent annual meeting, adopted several resolutions of interest to the medical profession. Some points made in the resolutions follow:

International Labor Organization—"The recent entry of the Soviet Union and its satellites into ILO has made a mockery of free and independent employer and worker representation. . . For many reasons the continued support of the ILO is open to serious question. The activities and structure, should be the subject of both a congressional investigation and an examination by the Executive. . ."

Disabled Veterans—"American business shares with government, labor and agriculture responsibility for aiding veterans with war-incurred disabilities in finding suitable occupations in civilian life. Working with various agencies public and private . . . the chamber pledges its support. . ."

Federal-State Relationships—"The activity of the federal government has been extended into many fields which, under our constitutional system, are the primary interest and obligation of the several states. . . The states, in order to maintain their governmental structure and procedures, must modernize their governmental structure and procedures in order that they can efficiently and economically perform the functions which are rightfully theirs. . ."

SOMETHING TO THINK ABOUT: In 1955, traffic accidents resulted in the deaths of 37,800 Americans. Speed alone killed 12,700 men, women, and children.

RECOMMENDATIONS OF THE BRADLEY COMMISSION for restrictions on certain veterans' benefits have been vigorously criticized by three leading veterans' organizations. In testimony presented to the House Veterans Affairs Committee, the Disabled American Veterans, American Legion and Amvets objected to the Commission's basic assumption that military service is the discharge of an obligation of citizenship and does not entitle the person to special privileges.

Of particular medical interest is the dispute over presumption of service-connection for disabilities. Under present procedures, certain diseases must be presumed to be service-connected if they become apparent within specific periods after separation from service. *The Bradley commission proposes instead that medical determinations be used, with each case resting on its own merits*, for chronic diseases, tropical disease, psychoses, tuberculosis and multiple sclerosis.

Veterans' spokesmen opposed this limitation, giving as one argument (the Legion's) that, "until American medicine has reached a point where it can determine with more than a reasonable degree of accuracy whether in fact certain types of diseases did or did not have their inception during the course of a man's service, the veteran should be entitled, in areas of doubt now listed, to the presumption that his disease or disability, within reasonable periods now or to be specified, was the result of service. . ." The Legion also emphasized that presumption may be challenged by U.S.

PRESIDENT EISENHOWER has signed into law H.R. 9428, which provides pay increases for medical and dental officers of the Army, Navy, Air Force and Public Health Service. This is another step forward in the campaign to make a military career attractive to young physicians. Assistant Secretary of Defense Frank B. Berry is confident that the new law will cause many young doctors to request extended active duty upon completion of their two years of obligated service.

REINSURANCE REVIVAL? According to a bulletin issued by the "Washington Report on the Medical Sciences" the Department of Health, Education and Welfare may soon submit a reinsurance plan similar to the one associated with the Hobby regime. Adlai Stevenson has added fuel to the fire by accusing the Administration of negligence in seeking support of prepayment insurance.

THE FIRST NATIONAL CIVIL DEFENSE WEEK will be observed September 9-15. The Federal Civil Defense Administration hopes to "bring to the American public the real and urgent significance of civil defense in preparing for a possible enemy attack and for natural disasters." Need for preparedness will be stressed on national, community, school, home and individual levels.

The Social Security Poll

ONE THOUSAND six hundred and thirty-six replies to the preference questionnaire were returned, representing the voices of about two-thirds of our membership.

In the preparation of the questionnaire, all the data and experience available through similar polls in other states was used. It has been said that no one individual fully understands the Social Security system. The difficulty in preparing a truly comprehensive questionnaire can therefore be appreciated. Some very significant trends, however, were revealed as a result of the tabulation of the cards returned.

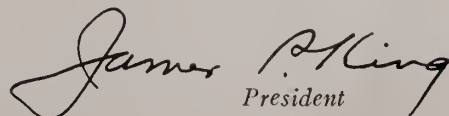
Four per cent of those replying would accept Social Security "as is". Fifty per cent would approve it if the system were on a voluntary basis. Sixteen per cent expressed approval of compulsory coverage should the voluntary way not be possible. Thirty per cent would have no part of Social Security.

The results from question 1 (4%) are about as expected. However, the large number of affirmative answers to question 2 (50%) is surprising. Many physicians have privately stated that while they have no personal desire to be included within the Social Security structure, they did not wish to deprive others of the privilege. But the really unexpected expression was contained in question 3 (16%). Physicians have traditionally stood up for the *voluntary* way as opposed to the *compulsory*. Does this relatively large percentage indicate a deviation in this time-honored stand?

A further observation of the tabulation is obtained by a combination of the three first questions: 1. (4%); 2. (50%) and 3. (16%). If seventy per cent of our membership accepts the principle of Social Security—for themselves or their colleagues—our representatives will certainly find it necessary to revise their thinking when the time comes to influence future legislation.

There remains the uncompromising position of those physicians replying affirmatively to question 4. (30%).

As a side-light, unsolicited comments, proved interesting. Here are some of them: "Cover everyone—Doctors should retire. . . I am opposed to any form of compulsion by any organization or government. . . As a State employee, I am glad that I am covered by Social Security. . . I deplore it all but the Doctor should have a place at the 'trough' as long as it exists anyway. . . I don't favor Social Security at all. . . I don't want any part of any of it. . . I do not favor the A. M. A. . . It is a wedge and may be used later to socialize medicine. . . If this is so wonderful, why are they straining so hard to get us in? I think they want our tax money and hope to pay us nothing. Let us be old-fashioned—self-reliable. . . And I don't want to pay for the Social Security of the general public, either. . . I am against anything that even suggests Social Security—it's just another play of something for nothing. I feel strongly that no Social Security is needed. Just work and manage. . . I am opposed to any federal system of coverage. . . I favor abolition of Social Security by the federal government. . . This poll should be limited to those whose age permits benefit from Social Security and not include those too old. The A. M. A. deserves the same criticism. . . If it proves actuarially sound. . . I do not want and am opposed to Social Security for myself. I would not deny it to M.D.'s who wish to be covered. . . I favor the inclusion of some lectures on types of insurance somewhere in medical course. . . I also favor deduction of cost of long period of training in income tax after starting in practice. . . This is no way to conduct a poll. . . This is the best poll I have ever seen."


President

The Radiologist and His Fellow Physicians

WITH ALL the present legal sword-rattling about the status of the radiologist as a practitioner of medicine, it would seem to be high time to take stock of his relationship with his fellow physicians.

To some clinicians, the radiologist is still the "puller of switches and blower of fuses", and not to be regarded seriously when he talks about clinical medicine from his realm of shadows. To others, his ray is endowed with magic properties such as allow the circumvention of the cerebral cortex. To still others (and it is to be hoped the largest group), he is a valued consultant, whose opinion and findings, like those of other consultants, must be woven into the fabric of the whole clinical pattern.

The practice of medicine has many aspects, but its first aim always remains "the best for the patient". Participation of the radiologist in the medical partnership contributes significantly towards achieving this end. The radiologist has as much right (and duty) to consult about the patient as the clinician to consult about the roentgenograms. Since the roentgenologic examination of the abdomen, for example, will vary according as one seeks urinary tract stones, intestinal obstruction, or free gas within the peritoneum, the necessity for cooperation is evident. The clinician who requests "flat plate of abdomen" without prior consultation with the radiologist may expect a report as barren as the request. Again, a request for "upright abdomen", if interpreted literally, will cut down on the diagnostic yield of the examination and may result in actual harm to the patient. Similarly, "A-P and lateral" of the wrist as ordered by the clinician (he usually means P-A) will mean that many serious carpal injuries go undiagnosed. To dictate projections or detailed technique for a given examination to a well run x-ray department is like dictating to the surgeon the type of incision, kind of suture material, etc., for the next appendectomy. This does not imply that the radiology department should exercise a despotic autocracy. Such a course is patently foolish. It does mean a medical partnership. Let the referring physician present his clinical problem rather than request specific projections, and let the radiologist take appropriate measures for solving it within the framework of the patient's safety. It is only thus that the diagnostic yield from roentgenology will be maximal.

A competently done roentgenological study gives three general groups of results: 1. Normal findings; 2. Abnormal findings; and 3. Borderline findings: It is precisely in this disturbingly large group that the medical partnership of clinician and radiologist is most essential. For example, questionable distortion of the mucosal pattern of a segment of descending duodenum might assume an even life-saving significance in a patient with a clinical picture compatible with new-growth here. The medical partnership has brought into clear relief the necessity for re-evaluation of this questionable finding.

The radiologist, on the other hand, must merit this acceptance into the medical partnership, and this he must continue to do throughout his professional life. His acceptance is not by fiat, but by earning. He must strive to make himself as conversant as humanly possible with the clinical disciplines in order to understand clinical problems. In proportion as he fails, so must he expect his specialty to be

taken over by various clinical sub-groups, while he himself is degraded to the position of technician and custodian to x-ray equipment.

CHRISTIAN V. CIMMINO, M.D., F.F.R.

"Cancer and Common Sense"

FEW BOOKS written in the past decade have aroused the degree of interest and criticism as "Cancer and Common Sense" by Dr. George Crile, Jr. A condensation appeared in *Life* magazine last Fall. A number of physicians reviewed the book for *Life* and the majority took issue with one or more premises advanced by Crile.

Crile points out that those responsible for informing the public about cancer have chosen to use the weapon of fear. He states a new disease has been created—cancer phobia—which spreads from mouth to ear. According to Crile this may cause more suffering than cancer itself. Unquestionably there is much truth in what he writes, although just what alternate method would arouse the same interest on the part of the public does not immediately present itself. Certainly no other approach by Crile would have aroused more opposition on the part of those whose job it is to raise funds for cancer purposes.

A second point made by Crile—that the rapidity with which operation is carried out after discovery of the tumor plays a lesser part in the ultimate outcome than is generally realized—also has occasioned sharp criticism. While there doubtless is truth to the statement, it is a dangerous remark for a surgeon of Crile's repute to leave around for lesser surgeons to stumble over.

Few will disagree with Crile concerning many of the unhealthy by-products of the current teachings concerning cancer. The distraught patient who demands an operation because of pain or an obviously benign condition of the breast is an ever increasing problem. The need for the prophylactic cholecystectomy because of an asymptomatic gallstone or the removal of an isolated adenoma of the thyroid because of the cancer potential should be weighed against the hazard of the procedure.

The wisdom of the ultra-radical operation with its higher immediate mortality, its accompanying physical and economic invalidism and its dubious ultimate outcome has been questioned by many. Crile is outspoken in his condemnation and feels we reach the point of diminishing return whenever we try to extend further our present surgical technics in the treatment of cancer. He predicts that when fresh aid arrives it will be in the field of chemistry and radioactive isotopes.

In closing Crile urges honesty and frankness in answering all questions propounded by the cancer patient, seasoned by generous amounts of optimism. Most important is the assurance that he will not be abandoned. The fear of being left to die alone and untreated by his physician is greater by far than simple fear of death according to Crile and it is the primary responsibility of the surgeon or physician to allay this apprehension.

The book is well written and represents the best literary effort of its versatile and indefatigable author. It is to be hoped he soon writes another.

H.J.W.

Cancer and Common Sense, George Crile, Jr., The Viking Press, N. Y. 1955.

Society Proceedings

Warwick-Newport News Medical Society.

The regular meeting of this Society was held on April 10th and seventy-one members and six guests were present. The highlight of the evening was an excellent talk by the guest speaker, Mr. Charles E. Ford, whose topic was "The Doctor, Patient, and

Law". Many aspects of the legal side of medicine were clearly and forcefully brought to the attention of the members.

Dr. F. A. Carmines is president of this Society and Dr. I. F. Nesbitt, secretary-treasurer.

News

Calendar of Coming Events

22nd ANNUAL MEETING—AMERICAN COLLEGE OF CHEST PHYSICIANS—Hotel Sherman, Chicago, Illinois—June 6-10.

105th AMERICAN MEDICAL ASSOCIATION ANNUAL MEETING—The Palmer House, Chicago, Illinois—June 11-15.

THE MEDICAL SOCIETY OF VIRGINIA—Hotel Roanoke, Roanoke, Virginia—October 14-17.

SOUTHERN MEDICAL ASSOCIATION GOLDEN ANNIVERSARY MEETING—Washington, D.C.—November 12-15.

New Members.

The following new members have been admitted into The Medical Society of Virginia since the list published in the May issue of the Monthly:

Daniel Norman Anderson, M.D., Norfolk
John Baldwin Catlett, M.D., Richmond
David Barnes Drewry, M.D., Petersburg
Hugh Pearson Fisher, Jr., M.D., Richmond
Robert L. Guillandeu, M.D., Alexandria
Martin A. Hoffman, M.D., Richmond
Jerome Imburg, M.D., Arlington
Eugene E. Makarowsky, M.D., Petersburg
John Henry Meyers, M.D., Ft. Belvoir
deSaussure Parker Moore, Jr., M.D., Hopewell
Paxton P. Powers, M.D., Staunton
James Cipriano Respass, M.D., Charlottesville
Yahya Shaliq Rida, M.D., Norton
Caldwell Jackson Stuart, M.D., Petersburg
George Edward Waters, M.D., Staunton
Harold Niels Wessel, M.D., Harrisonburg
Henry Wilson Williams, M.D., Petersburg
Daniel Yuter, M.D., Alexandria

Dr. Charles P. Cake,

Arlington, has been named the third recipient of

the Douglas Southall Freeman Award. This award is given by the Virginia Tuberculosis Association to the person who is judged by an impartial jury to have contributed most in the year preceding, or to an unusual degree over a period of years, to the cause of tuberculosis control in the State. The citation read: "For his unswerving loyalty to the highest achievement in tuberculosis control in the Commonwealth of Virginia and throughout the South in 1955, for his sympathetic understanding of the many tuberculosis victims to whom he has given of himself without stint or expectation of recompense, and for his championship of just concepts of the voluntary tuberculosis control movement throughout the State."

Dr. James P. King,

Radford, has been appointed by the Governor as a member of the nine-member commission created by the 1956 General Assembly to study problems of the aging.

Portrait Unveiled.

A portrait of Dr. Thomas Henry Daniel was recently unveiled and will hang in the lobby of the Martha Jefferson Hospital, Charlottesville. Dr.

Daniel attended the ceremonies and spoke briefly. He served for many years as chairman of the medical staff of the hospital.

Dr. William H. Barney,

Lynchburg, has been elected president of the Piedmont Heart Association.

C. & O. Hospital Medical Seminar.

A most successful medical seminar was held at the Chesapeake and Ohio Hospital, Clifton Forge, on March 30th, and the following program was presented: The Diagnosis and Treatment of Disseminated Miliary Diseases of the Lungs by Dr. Marion A. Blakenhorn, Cincinnati; Some Newer Aspects of Diverticulitis of the Colon by Dr. Harvey B. Stone, Baltimore; Recent Developments in the Treatment of Arteriosclerosis Obliterans by Dr. Fay A. LeFevre, Cleveland; and The Status of Surgery in the Modern Treatment of Thyroid Disease with Comments on the Effect of the Thyroid Secretion on the Cardiovascular System by Dr. Henry M. Thomas, Jr., Baltimore.

Dr. E. G. Gill,

Roanoke, read a paper on Recent Trends in Cataract Surgery at the meeting of the Alleghany Medical Society at Covington on April 17th. The paper was illustrated with a color movie.

Emily Gardner Memorial.

Richmond's newest well baby clinic opened in April and has been dedicated as a memorial to Dr. Emily Gardner who died in February. This is the sixth well baby clinic in Richmond. All kinds of shots are given, mothers are advised on feeding problems and the normal child is carefully supervised in order that his healthy development may continue. The clinic is equipped with examining rooms, scales, measuring equipment, sterilizers, syringes and biologicals. A physician is in attendance for each clinic held at announced hours.

Dr. Maurice M. Bray,

Suffolk, has been named as president of the Tidewater Heart Association. Dr. S. L. McDaniel, Norfolk, was elected one of the vice-presidents.

Dr. Edwin L. Kendig, Jr.,

Richmond, will address the 22nd Annual Meeting of the American College of Chest Physicians in Chicago, June 7-10. His subject is Asymptomatic Primary Tuberculosis.

The Hampton Roads Orthopedic Society

Was organized on October 31, 1955, and consists of the orthopedic surgeons in the Norfolk, Portsmouth, and Newport News areas. Dr. Foy Vann, Norfolk, was elected president, and it was decided to have four meetings a year, in the late fall, winter and early spring. The next meeting will be held on October 8th at the Naval Hospital, Portsmouth.

Joint Conference Committee



Names left to right: Dr. Malcolm H. Harris, Dr. T. B. McCord, Dr. H. B. Mulholland, Dr. Paul Sanders, Dr. W. R. Southward, Jr.

A state-wide Conference on the Problems of the Aging and the Chronically Ill is being planned for by The Medical Society of Virginia and the Virginia Richmond during the early Fall. Sponsored jointly Council on Health and Medical Care, the Conference will feature some of the nation's foremost authorities on this subject.

A special joint committee is now hard at work on arrangements and an early announcement of the time and place is expected.

American College of Physicians.

At the thirty-seventh annual session of the College, held in Los Angeles, April 16-20, Dr. Walter L. Palmer, Chicago, was installed as president, and the following officers elected: president-elect, Dr. Richard A. Kern, Philadelphia; vice-presidents, Dr. Chester M. Jones, Boston, Dr. George H. Anderson, Spokane and Dr. Truman G. Schnabel, Sr., Philadelphia; secretary-general, Dr. Wallace M. Yater, Washington; and treasurer, Dr. William D. Stroud, Philadelphia (re-elected).

Virginia doctors elected to membership are Dr. Richard H. Kirkland, Richmond; Dr. Merritt W. Foster, Jr., Richmond; and Dr. Robert B. Gahagan, Norfolk.

The 1957 annual session will be held in Boston, April 8-12.

The Gill Memorial Eye, Ear and Throat Hospital,

Roanoke, just completed its 29th Annual Spring Congress in Ophthalmology and Otolaryngology. There was an attendance of approximately four hundred, including doctors from forty states, Canada and foreign countries. The next Congress will be the first week in April of 1957.

Virginia Tuberculosis Association.

At the annual meeting of the Board of Directors of this Association, Dr. Charles P. Cake, Arlington, was named president-elect, and Dr. Edward S. Ray, Richmond, second vice-president. Other physicians elected to the Board of Directors are: Dr. Dean B. Cole, Richmond; Dr. James L. Hamner, Mann-boro; Dr. E. M. Holmes, Jr., Richmond; Dr. Thomas N. Hunnicutt, Jr., Newport News; Dr. Mary Elizabeth Johnston, Tazewell; Dr. Frank B. Stafford, Charlottesville; Dr. Ennion S. Williams, Richmond;

Dr. R. Bryan Grinnan, Norfolk; and Dr. Emmett C. Mathews, Richmond.

Mental Health Fund.

The setting up of a \$125,000 Mental Health Fund has been announced by the Smith, Kline & French Foundation. This is the philanthropic foundation set up three years ago by the Philadelphia pharmaceutical house of Smith, Kline & French Laboratories.

The fund has been created for use in the campaign against mental illness during the calendar year 1956. Principal targets will be basic research, psychiatric training and professional and public education.

For Rent.

Doctor's office, suitable for pediatrician or general practitioner. Located in Richmond. Write #75, care the Monthly, P. O. Box 5085, Richmond 20. (*Adv.*)

Obituaries

Dr. Robert Allen Davis,

Pioneer roentgenologist on the Peninsula, died at his home in Newport News on April 29th. He was sixty-nine years of age and a graduate in medicine of the University of Virginia in 1909. Dr. Davis began as a general practitioner but later completed a course of training at Harvard University in roentgenology and was associated with Elizabeth Buxton Hospital. During World War I, he served as Captain in the Army. He was a past president of the Seaboard Medical Association and the Warwick County Medical Society. Dr. Davis had been a member of The Medical Society of Virginia for forty-seven years. His wife survives him.

Dr. Preston Garnett Hundley,

Prominent physician of Lynchburg, died April 28th after a long illness. He was seventy-six years of age and a graduate in medicine of the University of Maryland in 1910. Dr. Hundley practiced in

West Virginia, Montross, Pembroke and Shenandoah before locating in Lynchburg where he had been for thirty-four years. He had been a member of The Medical Society of Virginia since 1913. His wife, two sons and a daughter survive him.

Dr. Alexandria Eston Murray,

Prominent physician of Beaverdam, died April 28th. He was a native of Burlington, N. C., and seventy-eight years of age. Dr. Murray graduated from the Medical College of Virginia in 1905. From 1908 until his retirement last year, he practiced in Hanover, Caroline, Louisa and Spotsylvania Counties. Dr. Murray served three years on the medical staff of the Virginian Railway Company and was local surgeon for the Chesapeake and Ohio Railway Company. He was a past president of the Hanover County Medical Society and a Life Member of the Medical Society of Virginia, having joined in 1927.

A daughter and a son survive him.

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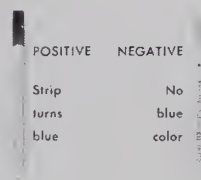
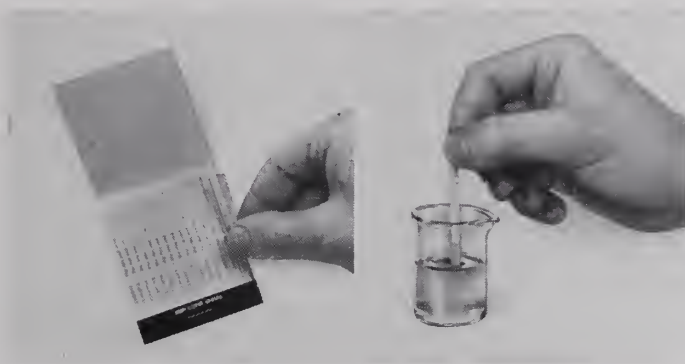
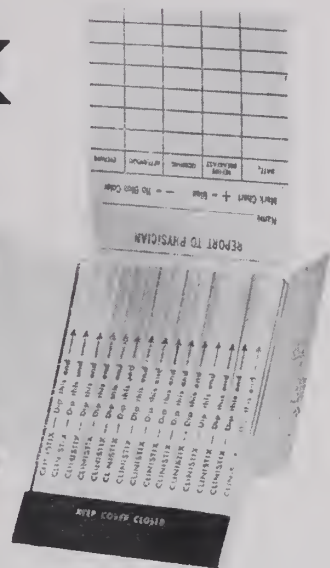
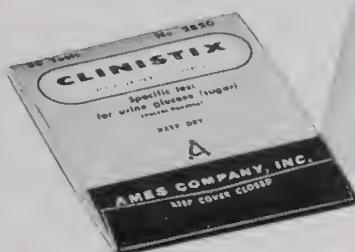
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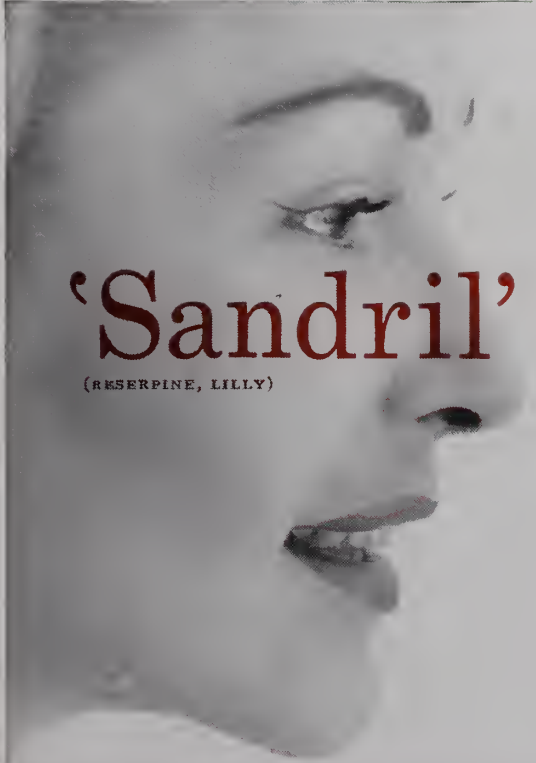
1. Karp, M., et al.: Am. J. Obst. & Gynec. 69:780 (April) 1955.

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(Founded by Landon B. Edwards, M. D., April 1874)

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Annual Subscription—\$2.00
Single Copies—25¢

TABLE OF CONTENTS

GUEST EDITORIAL

The Changing Scene—Herbert W. Park, M.D.----- 275

SCIENTIFIC ARTICLES

Old Doc—Charles C. Dennie, M.D.----- 278

Club Foot Treatment—Carl J. Roncaglione, M.D. and
William M. Deyerle, M.D.----- 285

Joint Manipulation in General Practice—John McM.
Mennell, M.D. ----- 295

Carcinoma of the Prostate with Metastases to the Penis—
Saul Kay, M.D., and Austin I. Dodson, M.D.----- 297

Rupture of the Esophagus—Edwin D. Vaughan, M.D.--- 300

Paget's Disease of the Nipple—John W. Devine, M.D.,
John W. Devine, Jr., M.D., and T. M. Thornhill, M.D. 303

Unsuspected Chronic Subdural Hematome—R. Lewis
Wright, M.D. ----- 305

Mission to Baghdad—Charles L. Outland, M.D.----- 307

PUBLIC HEALTH

Questions and Answers Dealing with Poliomyelitis Vaccine 309

MENTAL HEALTH

Who Are the Patients in Our Mental Hospitals?----- 311

THE MEDICAL SOCIETY OF VIRGINIA

The Chicago Conference of Legal Counsel----- 313

PRESIDENT'S MESSAGE

Sound Off ----- 315

EDITORIALS

The Multiple-Authorcd Medical Article----- 316

V. D. Survey in Virginia ----- 316

SOCIETY PROCEEDINGS ----- 317

NEWS ----- 318

OBITUARIES ----- 323

SHORT SUBJECTS—How to Fight Malpractice Threats, 294;
Doctors are Churchgoers, 299; Increase in Scurvy, 308; New
Physicians' Directory, 310. Social Workers in Medical Office, 312

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INDEX TO ADVERTISERS—Page 54

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1. Davidson, D. T., Jr.; Lombroso, C., & Markham, C. H.: *New England J. Med.* 253:173, 1955.
2. Zimmerman, F. T.: *New York J. Med.* 55:2338, 1955.



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Guest Editorial

The Changing Scene

SINCE the advent of the general use of "Sulfa" drugs about twenty years ago and the more recent experiences of World War II, the clinical practice of medicine and surgery has undergone a distinct metamorphosis. The general body of knowledge related to physiology, pathology, preventive medicine, diagnostic acumens, specific medications, and surgical techniques has expanded rapidly. There has been a dramatic improvement in the caliber and number of hospitals throughout the State of Virginia. The recent advances in medicine and surgery have been disseminated quickly throughout the area. As a direct result the death rate has steadily decreased and the general health of the state-wide community has improved. Based on these considerations one might conclude that if there are sufficient hospital beds and medical personnel all suffering could be controlled and maximum community health attained. However, concurrent with the increase in the medical "Know-How" and hospital beds there has been:

- (1) A steady rise in hospital bed utilization
- (2) An increase in the length of hospitalization, and
- (3) A continued growth in the number of physically and emotionally disabled.

Does this mean that medical care is decreasing in effectiveness? Does it indicate poor treatment by physicians?

The answer to these questions is a definite—NO! In fact, it is a laudable salute to all physicians in that we are foraying into areas which were unapproachable twenty years ago.

Acute infection is no longer an overwhelming problem, but irreparable damage may be done to an organ system before the antibiotics are started.

Survival after prolonged coma following head injury is not unusual because of excellent surgery and a fuller understanding of fluid balance and nutrition. Some patients may recover reasonable function while others may live in a semi-decerebrate state for many years.

Patients regularly survive massive cerebrovascular accidents and live for years with a severe hemiplegia and often aphasia. The nursing homes are filled with such patients.

Extensively, involved and dramatic surgery is done daily in every community hospital in the Commonwealth. The operative mortality is low. The very large portion of patients return to their normal way of life. However, there is a significant group who cannot attain such an excellent end result.

Every day physicians are saving lives. However, because we are extending services

into the realm of the complex we are creating widespread problems in two major areas:

- (1) *The average age of the population is steadily increasing.* Approximately 65% of the persons 65 years and older are supported by public funds. Less than 15% of this group produce more than meager self-support. A very high portion of the hospital beds are occupied by this age group.
- (2) *The number of surviving disabled persons is steadily increasing in all age groups.*

Therefore, the change resulting from our present plane of medical and surgical management is that death is giving way to dependent longevity and disability. This is striking progressively deeper at the structure of the home, the community, and the nation. Because we as physicians are playing a major role in creating these problems it is incumbent on us to seek solutions.

Obviously there is no ready formula to alleviate the situation. However, it appears to me that there are certain guides around which thinking must evolve if we are to gain the initiative in controlling the degree of disability in each community.

Firstly, the physical, emotional, social and economic well being in a patient's recovery from illness or injury is a universal concern of all physicians. With this as a basis philosophy of the practice of medicine, the patient's physician is the keystone for rehabilitation planning. The predominant number of problems are not complex and can be solved in the office or the community hospital. The optimum end result in all cases will range from bed care in a nursing home to return to the usual occupation. It is essential that all physicians be "rehabilitation minded" at all times.

Secondly, the physician must be made keenly aware of the fact that the growth of numbers of handicapped or dependent persons is an insidious process. Their ranks increase one at a time. Therefore, it is necessary for each case to be weighed carefully on its own merits so that an optimum end result can be attained. It is highly important to consider whether a hemiplegic patient should be discharged to a nursing home, or whether he is capable of learning self care so he can live in his own home, or whether he can return to some occupation.

Finally, it is the duty of each physician to be acquainted with the various resources he has at his disposal in coping with rehabilitation problems.

For the sake of brevity I will assume that you are acquainted with the Public Welfare, Social Service and Crippled Children's Bureau programs in the Commonwealth, and I will pass on to four less familiar resources.

(1) During the past decade physical therapy clinics have been established in many areas of the State. At present units are in operation in Arlington, Alexandria, Richmond, Petersburg, Norfolk, Newport News, Portsmouth, Suffolk, Danville, Roanoke, Lynchburg, Charlottesville, Staunton, Harrisonburg, and Winchester. Physical therapy thoughtfully prescribed by any physician can be very useful in reducing pain, strengthening muscles, regaining movement, teaching the use of artificial limbs and braces, teaching coordination and ambulation, accessing physical stamina, etc. Physical treatment is often important in reducing the degree of potential disability.

(2) The Vocational Rehabilitation Service of the State Department of Education, Richmond, Virginia, now has ten offices strategically located throughout the Commonwealth. The purpose of this organization is to make funds and advice available to assist physicians in the rehabilitation of adult (sixteen to sixty years of age) disabled individuals. If you have patients who are disabled for work and there is a reasonable prospect the treatment and/or vocational training will make them employable, you will find contact with the Vocational Rehabilitation Service of great assistance.

(3) For more complex cases requiring rehabilitation planning the family physician will be interested in the undertaking at the Medical College of Virginia and the University of Virginia Hospital.

During the past three years the Baruch Center of Physical Medicine and Rehabilitation of the Medical College of Virginia has been converting from a research organization to a medical rehabilitation center. About eighteen months ago we started admitting patients to the Physical Medicine and Rehabilitation Service in the Center, and the organization of this unit is now attaining a satisfactory level of function. The Baruch Center is now an integral unit of the Medical College of Virginia Hospital. The services available through the Center are: (1) Medical evaluation and treatment. (2) Consultation with all other medical and surgical services at Medical College of Virginia. (3) Psychological testing. (4) Pre-vocational assessment. (5) Prosthetic evaluation and treatment team. (6) Cerebral palsy evaluation and treatment team. (7) Speech and hearing evaluation and treatment. (8) Prescribe physical and occupational therapy and, (9) All significant patients are reviewed by the Rehabilitation Evaluation Board. The services of the Center are extensive for in- and out-patient care to children and adults, white and colored. The present program is still relatively small, but within another year approximately sixty beds will be available for the Medical Rehabilitation Center.

Excellent plans have been initiated at the University of Virginia Hospital in Charlottesville. The aim of the program at the University is to coordinate the service programs of a large number of community agencies with the consultative resources of the University of Virginia Hospital, the School of Education, the Speech and Hearing Center, the McGuffey Reading Clinic, the Children's Service Center, the Department of Psychology, the Division of Educational Research, and others.

In order to carry out these objectives the Dean of the School of Medicine has appointed a Rehabilitation Advisory Committee. The function of this group is to formulate policies and supervise the administration of the program. The principal projects which are being developed are:

- (a) The Children's Rehabilitation unit which will be built in 1957 will be designed to offer a program of rehabilitation to handicapped children.
- (b) An integrated Adult Rehabilitation Program is being initiated. This program will be directed to developing "rehabilitation mindedness" throughout all departments in the hospital and should prove to be highly effective.
- (4) For disabled persons who need training in vocational skills, the Vocational Rehabilitation Service has established a Vocational Rehabilitation Center at Fishersville, Virginia. This you may know as the Woodrow Wilson Rehabilitation Center. I particularly draw this institution to your attention because services secured for patients may be misconstrued, in that this is not a hospital. It is a school with a capacity of four hundred persons and a thirty-one bed infirmary.

Woodrow Wilson Rehabilitation Center is used properly when a patient is referred for vocational training and needs some physical and/or medical treatment on an ambulant basis. In addition, there are comprehensive services related to vocational, diagnostic, and physical restoration. At this level this vocational rehabilitation center is highly effective.

In conclusion, to gain better control over the increasing numbers of disabled, the family physician is the keystone in rehabilitation planning. He must know and use the resources available to him as he deems necessary.

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Old Doc

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THIS IS THE STORY of the professional life of a country doctor. He practiced medicine in the last half of the nineteenth century and the first quarter of the twentieth. I know that all of you would rather listen to the story of a vibrant personality, by one who knew him well, than to listen to the classical narrative of a professional medical historian and besides, there is little in medical history to acquaint one with the trials, tribulations, the successes and the failures of a medical man during that period of time. Why that period of history should be so blank no one knows. The only three great things that were accomplished during that time or a little before were the operation of Ephraim McDowell for the removal of an ovarian cyst, the discovery of chloroform by Liebig and the first utilization of sulphuric ether by the dentist, Morton, in the Massachusetts General Hospital in 1840. When my doctor began to practice medicine he employed the same type of therapeutics that had been in use for over two hundred years. I selected Old Doc as the medium through whom I could relate the story of medicine of his time. He was my ideal and my patron.

Old Doc was not an old man when he started to practice medicine in our village. He was a Canadian and had just graduated from the University of Michigan Medical School. He was the first passenger on the first passenger train of the old Kansas City, Missouri River and Gulf Railway that passed through our village in 1869. That, of course, was many years before I was born. The great Continental Railway had just been completed over the vast plains and mountains of the Western half of the United States.

He did not select the village in advance. He was undecided just where to begin practice but he wished that place to be a new country, a place where he could help develop it and watch it grow. A few miles back he saw the forest primeval, the home of the oak and the walnut extending for miles on either side of the railroad. The heavy green foliage was like that which he had seen in paintings. None but a primeval forest has the dense green leaves that form a canopy through which the sunlight does not pene-

trate. When he stepped down from the platform a curious sight met his eye. Accustomed as he was to the civilized and sophisticated manner of the people of Toronto and Ann Arbor, these were strange people who crowded the depot platform. The villagers had gathered on that platform to see the first train come through on its way to Memphis. The entire population of the village was there excepting those who were ill. The men wore hickory shirts and patched breeches, the women their shawl-like bonnets and hoop skirts. The little boys who were running after each other and shrieking were almost half naked, and the clothes they wore held in place by a single gallus. There were two Indians with wool hats upon their heads and dirty blankets around their shoulders, and one Negro freedman who had lived there for many years.

Old Doc, who was young then, looked at the crowd seriously and they looked at him. They saw a medium sized man with square shoulders and proud bearing, a full bearded man with grey eyes and black bushy hair. When he stepped down from the coach he had his entire possessions with him—two saddlebags and a surgical case. One of the saddlebags carried his extra clothes, the other all of his medicines with which to treat the ill and must last a long time before they could be replenished. While the drugs were not numerous they were very effective. There was opium mass, Cinchona bark, tincture of aconite for reducing fevers, calomel pills to stir up the liver, turpentine for sterilizing wounds, chloroform liniment for aching joints, blue ointment for treating syphilis, tincture of arnica, rhubarb for constipation, potassium iodide as an alternative, strychnine pills for the spring fever, salves, chartae and pills of various other kinds. About him in the timber he later found the May apple root or mandrake whose fresh juice he used in the treatment of ringworm of the skin. His surgical case was his pride. In it were the long keen rapier-like knives, four in number, ranging from ten inches to six, for amputating arms and legs, his scalpels of different sizes for opening abscesses, his big butcher saw for cutting the bones for amputations, the spade-like saw only two inches in breadth with which he could reach into openings and saw off pieces of bones, and the little curved saw for amputating toes and fingers. He had curved sharp pointed retractors for picking up

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Presented before the Section on History of Medicine, Richmond Academy of Medicine, February 14, 1956.

arteries and nerves, and needles of all sizes for suturing, together with the linen sutures. All of the metallic instruments were coated with a thick layer of axle grease. When he used them he boiled them in sodawater to remove the grease. He had no idea of sterilization for Old Doc started to practice medicine long before Louis Pasteur had discovered the various pathogenic organisms and before the great German and French scientists had identified the organisms that produce disease. He was naturally a neat and clean person who would always wash his hands before doing an operation of any kind and simply boiled his instruments to remove the dirt and grease.

When he stepped off the train a thin July rain was falling and had been falling for several days. After the train had departed he made his way through the mud and slime to the one store that was situated a couple of blocks from the depot. Entering the fly infested place through the unscreened door he saw a man with a pale yellow skin standing behind the counter, whom he took at first to be an old man but upon closer examination saw that the man was simply ill. The storekeeper asked to serve him. The Doctor replied "I am seeking a place to practice medicine and from the looks of you I think you need me. Is there anything I can do for you?" The storekeeper replied that there was, and related the following story: "In the battle of Shiloh I was wounded in the groin by a spent minie ball which cut across my urethra and opened it. Luckily I escaped gangrene but I was in the hospital for a long time. When the wound healed it restricted the flow of water. Evidently it has become inflamed for I have not been able to entirely empty my bladder for several days." There were two instruments Old Doc carried on his inside coat pocket that were his pride and joy. One was a silver catheter and the other a tooth forceps and at that time they were probably the only two of their kind in the whole of eastern Kansas. Taking the storekeeper into a back room Old Doc laid him on a work table and opening a can of lard, took his silver catheter from his pocket, greased it well and relieved the storekeeper. He was to do this for many years until the rubber catheter came into use. Then he simply bought them for his patients and allowed them to treat themselves. Many of the old men thus catheterized themselves for years. If they didn't have lard or butter with which to grease them they would often spit on the catheter. It was never boiled or even cleansed. It seems that these individuals became used to their own infection and would even grow thickened bladder walls without much inconvenience

to themselves, but God help these old men when an enthusiastic young doctor in later years undertook to wash out their bladders. The patients developed chills and fever and some of them came nigh to dying. If left alone many of these men died of old age in spite of the use of the catheter for fifteen or twenty years.

It must be remembered that sanitary conditions both in the country and the city were very bad. In fact they were about on a par with sanitary conditions found in an Arab village of a thousand years ago. The wells were sunk on the downslope from the barn where the spring rains washed in not only soil but the excreta of animals. No one ever thought of washing the udder of a cow and strainers were put upon milk buckets in order to strain out the filth that had fallen from the cow's udder into the milk. Infant feeding was a problem. Most mothers breast fed their infants but those who did not allowed their babies to nurse milk from bottles that had never been heated. When the child got old enough to take solid food the mothers chewed the food first then put it in the babies' mouths. Practically all of the mothers had pyorrhea and decayed teeth. One does not know how many cases of tuberculosis were thus transferred from mother to infant. The tuberculous patient lived with the rest of the family, ate at the table with them, if he could sit up, and his dishes were washed with those of the family. Whenever he coughed or sneezed no attempt was made to guard others against the sputum that flew from his mouth. Spitting on the floor was not considered to be a mark of bad taste. Tuberculous cattle were not recognized consequently there were a good many cases of tuberculosis of the bones in our village and the surrounding country. Into this primitive village as far as sanitary conditions were concerned Old Doc started his practice.

He had been there but a month when the usual typhoid epidemic manifested itself. Old Doc had read an article written some fifteen years before concerning the treatment of typhoid fever. It was the most modern approach that he had to this subject. The article was published in 1854 in the J.A.M.A. It was a symposium in which three men gave their opinions of the treatment of typhoid fever and the fourth man, the interlocutor, discussed the virtues of all. The first essayist would feed the typhoid patients nothing and would allow them hardly any water. He stated that his patients did badly upon food. Of course at the end of the fever's raging he admitted that his patients were mere skeletons. The second essayist would feed them a full diet of soft

foods. The third would do nothing but bleed them. The interlocutor in reviewing the three essays commended each man upon his efforts but decided that bleeding was the best method of treating typhoid fever. Old Doc was expecting an epidemic of typhoid fever and had already decided what he would do. He would give them a moderate amount of soft foods, excluding milk for he stated that milk made large stools, thus his patients would not have a perforation of the intestines for if they did have, there was then no surgical procedure by which the guts could be mended and the patients would all die. It was not until 1886 that Rudolph Krönlein removed the first appendix and had a living patient. Old Doc decided to keep the rising temperature within bounds by temperate bathing and to train people in the family and in the neighborhood in the methods of simple nursing. He probably had fifteen cases of typhoid fever that year and he didn't lose one of them. He was even forward enough to dig pits lined with quicklime into which he threw the excreta of the typhoid patients.

The bloody flux was a problem with all the children from two to ten years of age each summer. The mothers had no idea of proper feeding and would allow the children to eat green corn even when they were in the midst of this enteritis. The ravages among the infant population were great. It was a disease which produced bloated bellies, swollen legs and skeleton forms that retarded the children's growth for years. Old Doc treated these patients with small doses of opium mass and later with paregoric, restricting their diet to smooth foods. Until the modern antibiotics entered the field this was as good a treatment as had ever been devised for these children.

As winter came on the really fatal diseases made their appearance. The worse of all was the black diphtheria. All except the father of a family of five over on Bull Creek were wiped out by this disease. Old Doc said that diphtheria had a distinct odor and he could diagnose it by that odor when he stepped into the room. The same was true of typhoid, measles and a number of other diseases. This was a valuable clinical observation for many times he could diagnose the disease before the diphtheria membrane appeared in the throat and over the uvula. He claimed that when he entered a room his nose was his best diagnostic possession. There wasn't anything he could do for diphtheria except to swab the throat with turpentine and use turpentine stoops around the neck. The membrane would progress rapidly down into the lungs and when it

loosened, if the victim were alive, he would cough out a cast of almost all of the bronchial tubes. A few of the cases survived but often suffered many complications, the least one being paralysis of the throat muscles so that water, instead of being swallowed, was blown out through the nose.

Old Doc had one case of peripheral neuritis or paralysis of every part of the body excepting the jaws and the eyes due to the toxins of diphtheria. This patient finally recovered. Diphtheria antitoxins and lockjaw serum were not devised by Behring until 1892 but as soon as it was available Old Doc used them. He was probably one of the first men in Kansas to use this life saving serum. He saved the life of the son of the most prominent citizen and thereby earned everlasting gratitude not only of that man but of all of the parents of children he has saved.

Lockjaw was no problem to Old Doc in the early days. If anyone ran a rusty nail in his foot in the barnyard Old Doc knew just exactly what to do. Of course it is well known that the excreta of the horse contains the lockjaw bacillus in immense numbers, but it didn't mean that every time anyone stepped on a nail in a barnyard that he died of lockjaw. Some people paid no attention to the puncture wound and survived. Our Doctor split open the wound with a sharp bistoury, being sure that he reached the bottom of the wound, and left a wick of turpentine in the open sore. No one ever developed lockjaw during all of his practice in the village. How different the picture today. Should one run a rusty nail in his foot in a barnyard he would immediately be given lockjaw antitoxin and injections of antibiotics in his hip. He might even be sent to the hospital for this treatment. The patient would not develop lockjaw but on the ninth or tenth day he would develop sore joints, low fever, pains and aches which would necessitate his going to the hospital where he would be given adrenalin, ACTH and cortisone. About the time he got over the serum sickness he would develop terrific reaction from his injected penicillin which would require another stay of a week or ten days in the hospital. If the patient got out of the hospital with a bill of less than \$500 he would be doing well. Old Doc charged his patients fifty cents.

Lung fever followed close on the heels of diphtheria. The mortality was extremely high. The common practice in those days was to put the patient to bed with blankets, quilts and even goose feather beds on top of him. All of the windows in the room were closed and the cracks calked with pieces of old cloth. The victim was sewn up in a

cotton padded jacket from his neck to his hips. Not a current of air was allowed to strike him. Quinine and calomel were the only things used to combat the fever. If that got too high he was given tincture of aconite to lower it. Old Doc didn't believe in this kind of treatment. He allowed air to come into the room but no air current was to blow directly on the patient. He was given a moderate amount to eat, the ubiquitous quinine and calomel were administered. No padded jacket was sewn on him but mustard plasters were applied to his back and chest. Experimental work in later years showed this to be very good treatment. I think that his rate of mortality was much lower than it was in those who were treated in the classical manner.

Erysipelas was not uncommon. It was treated with cranberry poultices or with fresh cow dung. Old Doc was never guilty of using the latter on any of his patients. In the spring there was the usual epidemic of measles and chickenpox. The morbidity was very high in measles and there were some deaths. It was often followed by middle ear infections and sometimes by mastoid disease. There were no operations for this condition and many of the patients died. In some instances the measles would not break out on some member of the family although he had the red eyes, the coughing and a fever. In these cases the old women advised sheep dung tea to be given very hot, but Old Doc, when consulted, gave them hot sassafras tea. Tuberculosis was rampant in the whole United States at that time. I have no doubt that a quarter of the entire population was affected by this disease. There was no treatment for it. Scott's Emulsion of Cod Liver Oil was given in some hopes that it would help. Patent medicines were in their heyday, none of them any good for this disease but Piso's Consumption Cure was the favorite. There were two hunchbacks in our community and three children with tuberculosis of the hips. This is a high percentage in a population of only two hundred. It was not known at that time that the disease was transmitted to human beings from the milk of tuberculous cows.

Venereal diseases were very common. The majority of the young men occasionally went to the big city where they contracted gonorrhea. One always heard about the purity of rural communities yet Old Doc treated three cases of congenital syphilis and numerous ones of the acquired type. He is the one who always said "One night with Venus and three years with mercury". He gave iodides in large doses and over long periods of time. His treatment for gonorrhea was the injection of one-fourth of one

per cent of silver nitrate. Rheumatism was treated by giving the pulverized bark of the willow tree and by the administration of cooked cranberries, both of which contain some salicylic acid.

I remember the first time that I ever met Old Doc. I had been herding our cow along a country lane when this animal became cantankerous and I had to chase her through a hedge row. In the process I ran three hedge thorns in my big toe. One thorn was broken off. In three days my toe was swollen badly, red streaks ran up my leg and I had a tender knot in my groin as large as a black walnut. I went to see Old Doc about it. He took out the thorn and told me to go home and have my mother make a poultice of moldy bread and milk and to keep it on my foot for five days, keeping it damp by the addition of small amounts of sweet milk. He believed that moldy bread had particular virtue along this line. In five days my foot was practically well. Many folks in those days didn't consult the doctor for minor ills. If the men became galled while plowing corn they stopped at the end of the field where the sun beat down upon the fine dust that the quails had made and taking down their trousers fanned this fine dust upon the affected places. They got almost immediate relief. We know now it was because of the antibiotics contained in the soil. During corn shucking time in the fall every farmer had a can of pine tar nailed to the wagon bed. The application of this tar to the cracks in his hands healed them.

No one knows why chloroform was not used as an anesthetic before the 1870's by the general practitioner in both the city and the country. Liebig had compounded this chloroform in 1834, six years before Morton used sulphuric ether to produce complete anesthetic state. Old Doc did use chloroform in the 70's in his obstetrical practice. At that time most of the people and especially the doctors thought that pain and suffering were a natural part of childbirth and that the women should bear these tortures without complaint. Old Doc thought differently. When he went to one of the houses of the village or a farm house to deliver a baby he took a can of chloroform with him. When it was time for the baby to be delivered and the pains were very close together he tied a string around the upper end of the can and tied the other end of the string to the head of the bed so that the can of chloroform hung within easy reach of the patient. He punched a hole in the top of the can, placed a crude chloroform mask over the patient's nose and told her to take the can in her hand and drop the chloroform on the

mask, all the while counting one, two, three, etc., dropping about fifteen drops of chloroform to the minute. When the can dropped from the patient's hand Old Doc got busy and delivered the baby. If the patient came to before the delivery was done he had her repeat the process so that she was under safe anesthesia most of the time and suffered very little pain. If there was a tear in the perineum Old Doc sewed it up then and thus avoided a great many of the perineal weaknesses that developed in women who have been torn by childbirth. This was a much safer procedure than to have the anesthetic administered by the husband or a neighbor woman. They might give too much but the patient would always drop the can and stop the anesthesia before she was under too deeply.

The Old Man and the Madstone was an institution in our part of the country. He lived over by Wea Creek and possessed one of these miraculous stones handed down to him by his grandfather. It had been tried and tested on dozens of cases and everybody for miles around knew of its great power. Their fathers and grandfathers had recounted many cases of hydrophobia that had been prevented by the use of this stone. The thing itself was a round brown stone like glazed sphere composed of the matted hairs swallowed by the Virginia deer as he cleansed his hide with his tongue and after a time had regurgitated it.

Rabies or hydrophobia is a disease that has attacked man for hundreds of centuries. At no time has there ever been an extensive epidemic but the disease has been endemic in all countries at all times, although the actual number of persons afflicted has been extremely small. The dog is the most common vector. It was not until Pasteur had consummated his experiments that there was any hope for the poor wretch who had been bitten by a rabid animal. The immunization treatment of Pasteur must be started before the disease has had time to entrench itself in its victim. In spite of poor communications at that time the news of Pasteur's great discovery spread to far-off countries but the rural people of the nineteenth century knew nothing of this discovery. If they had heard of the vaccine they would have considered it a new fangled and dangerous idea. They had extreme confidence in the Mad Stone. If a person were bitten by a dog the family took the injured member to the old man with the mad stone. He soaked the stone in sweet milk and then applied it to the site of the bite. If it stuck to the wound the diagnosis was certain. The dog was rabid. The stone was sucking out the poison. It was alternately

soaked in milk and applied until it fell off of its own accord. The charge for the service was one dollar. Of course the majority of the dog bites were by non-rabid dogs but credit was always given to the stone. In one case it failed. A child, a hog and a calf were bitten by the same dog. The child was taken to the old man. The stone stuck in the proper manner and after it had fallen off the child was taken home. Everything was serene until about the thirtieth day when the sow went berserk, charged anything in sight, slobbered at the mouth and could not eat or drink. After three days she died. At the same time the calf began to run in circles, became paralyzed in the hind quarters and dragged itself around the lot. It could not eat or drink and foamed at the mouth until it died on the fifth day. The father believed so strongly in the efficacy of the Mad Stone that when the boy complained of a drawing in his throat he paid no attention to it. The boy claimed that he swallowed water with great difficulty. He was sent to bed. He was restless all night and when his mother brought his milk toast in the morning he grabbed the bowl with shaking hands, lifted it to his lips and spewed the whole mess over himself, his mother and the bedclothes. Then he got up and began to run around the room, falling, stumbling, running into things and butting his head against the wall. In a hoarse voice he kept calling for water, water, but he couldn't drink it. They were urged to take the boy to the big city by Old Doc who came immediately when the father told him the story. Old Doc sized up the situation accurately and told everybody to stay out of the room except the mother. He said "The Mad Stone has failed and the boy is rabid." Binding him hand and foot they loaded him into a wagon and as fast as they could drive took him to a hospital in the city. The stricken child struggled continuously against his bonds. The sweat stood out on his pale face and his eyes were wild and unseeing. He called for water, water, tanks of water in his strange hoarse voice but when the dipper of water was placed to his eager lips he sprayed it all over the room, for by that time all of his throat muscles were paralyzed and only the explosive force of his abdominal muscles remained. Then came the growls and howls due to this paralysis of his throat. They became fainter and fainter and his struggles grew less and less as the last day wore on and finally came the total paralysis. He died after five days. Old Doc knew about Pasteur's work but it was too late to do anything about it after the boy had developed the symptoms.

Folks had cancers in those days but a lesser number were afflicted then than in modern times. The two reasons that there were fewer cancers were, first that people didn't live long enough to reach the cancer age except in a few cases, and secondly, so many died of cancer without anyone knowing that any malignancy was present. There must have been many people who died of cancer of the lungs, stomach, liver, intestines and uterus but neither the doctors nor the people were aware of it. There was never an autopsy performed in our village and bodies were buried without issuance of death certificates. Some of the older men did have cancers on their skin. Some were truly enormous because there was no means of controlling them. Old Doc didn't even try to treat them because he had nothing at hand with which to do the job.

There was an old woman over on Gil's Ford on Bull Creek who had a method of curing skin cancers which she guarded so zealously that nobody ever found out what it was. Some thought she used the rain leeches liquor from the trough of the wood ash hopper and others thought she made a concoction out of ground up May apple (mandrake) that grew profusely in the forest, but whatever it was it seemed to be very effective. Whenever a customer came to see her she made a cash proposition that included bed and board. She never had more than one patient at a time. She used some kind of paste. I have no doubt that it was the same one employed in the time of Queen Elizabeth the First. At that time a paste was made of one-third by weight of white vitrol, two-thirds by weight of plaster of paris or wheat flour, the two well mixed and wetted down into a thick white mud with the spirits of wine. The old lady would mix the formula and taking a clean case knife would plaster the mixture into the cavity of the cancer and allow it to stay there until it fell out in from nine to fifteen days. The pain was terrific but she had nothing to relieve it for that was long before the time of aspirin. The patients came away from her place with great red scars on their cheeks or with holes in their noses or great gaps in their lips through which the teeth showed, but she cured some of them, and our faces are red now in modern times because we have revived that old method of treatment prescribed two hundred years ago. It is used on cancers that are resistant to x-ray and radium and too extensive for surgery.

Pompy drove up to the depot just a few minutes before the train stopped on its way to the big town. He had his old Pappy riding in the back end of the

spring wagon. Pappy had a game leg which had been creased by a falling tree when he was a young slave in Alabama so it was much more comfortable for him to sit on the hay in the wagon bed. Pompy had just tied the horses to the hitching rack when the first faint toots of the incoming train were heard. The horses picked up their ears as the roar of the oncoming train increased. As the screeching of the brakes reached a high crescendo Pappy stood up in the wagon just at the same time the terrified horses broke loose from the hitching rack and turning sharply at right angles literally took off for tall timber. Pappy was thrown with great force upon the hard packed cinders by the side of the depot platform, breaking his game leg between the knee and hip and running the split end of the raw bone into the cinders. The members of the GAR who were among the group recognized that Pappy was in deep shock and sent for Old Doc to come immediately. When he got there he had to push through the people to get to Pappy who was lying quietly on the ground. Old Doc was a forthright individual and the first thing he did was to put a brandy bottle to Pappy's lips. The first swallow of the fiery liquid opened old Pappy's eyes. Meanwhile Old Doc ordered the onlookers to shed their coats and put them under and over old Pappy until some quilts and jugs of hot water could be brought. Old Doc found Pappy's pulse was weak and thready, his mouth was open and his eyes glassy and staring. He knew that the injured man was in deep shock and would have to be taken out of that condition before the leg could be amputated. The leg was straightened and the bone put back in the flesh. Old Doc then reached for the three bed slats an old veteran had brought. He quickly put the slats around the leg and tied them in place with a piece of rope in order that Pappy could be moved to a bed in the home of one of the villagers. A two by four was laid across the high head and foot of the bed. Jugs of hot water were placed around him and he was covered with a blanket. A quilt was thrown over the two by four, thus making a crude shock tent. A lantern was hung to the two by four to give added warmth and hot coffee was poured down old Pappy's throat, along with two grain of opium mass. The second cup of coffee was laced with another slug of brandy and when that fiery liquid went down his throat Pappy opened his eyes and groaned. After two hours of hard labor and skillful attention and with the aid of the women who could help him Old Doc succeeded in getting Pappy out of his shock and decided that the time had come to cut off the leg. The

injured man was placed on the table and the temporary splint removed. Six men were detailed to hold Pappy down. Old Doc tied a rope tightly above the open fracture, slipped two hand holds made of clothesline into it so arranged that they were like handles on a basket. When the assistants pulled back on the rope handles it not only stopped the hemorrhages but pulled the loose skin back so that there would be skin flaps left to cover the bare end of the bone. Meanwhile the women were boiling the saw, the knives and the other instruments in soda water, not with the idea of sterilizing them, for even Old Doc didn't know anything about germs or aseptic surgery, but they were boiled to cut off the axle grease with which they had been coated to prevent rust. The dirt was scrubbed from the injured leg with soap. There was no antiseptic with which to paint the skin. Old Doc took the long ivory handled amputation knife, which was about ten inches long, and cut entirely around the leg in one swift, circular movement. He then cut all of the muscles in a few circular motions, down to the bone. The surgeon asked for the saw and with a few swift strokes sawed the bone through and the leg fell to the floor, three minutes after the first knife cut. Pappy didn't feel much pain because he was too full of brandy and opium. The blacksmith was standing ready with a heated endgate rod to burn the ends of the big nerve of the leg so that Pappy would not have pain in the foot of his amputated leg to his dying day. Also careful instructions were given to young Pompey to bury the foot with the toes pointing to the setting sun, true East and West, so that in after life Pappy's spirit would not be going backwards in his last journey. A wrong way foot would condemn him to eternal confusion and perhaps to Hell.

Old Doc tied off the big vein and arteries with linen thread and cauterized the little veins with the hot endgate rod. Under Old Doc's instructions one of the men loosened the tourniquet to see if any new

bleeders were brought to light. Because of the retraction of the skin there was enough of that organ left with which to make stump flaps. After these flaps had been sewn together Old Doc trimmed off the edges with a pair of scissors, leaving two triangular pieces of skin which were buried with the amputated leg. The bugbear of that day of surgery, gangrene, did not occur. The leg healed quickly leaving an excellent stump, well padded with muscle. Old Doc did not trim the end of the bone to make it round. He was correct. In modern days it has been found if this is done the leg has to be reamputated. Pappy made himself a peg leg out of good willow wood and skuffed around the village fifteen years more before he died of old age. That was the only real serious operation that Old Doc ever did, for shortly after that the use of anaesthetics became general and surgical cases could be transferred to the hospitals in the big cities where more skillful surgeons than Old Doc took over.

When appendectomies began to be common operations Old Doc laid away his surgical instruments forever and devoted himself entirely to the practice of medicine. It was not until the twentieth century that he really began to use modern therapeutics and even then there were but few specific remedies. He was a master of psychosomatic medicine. When he entered a sick room his patient immediately felt better, unless he was afflicted with some desperate disease. Old Doc's kindly administration to his patients did them far more good than the medicines he gave them. That lesson should be taken to heart in modern days for eighty per cent of the methods used in the curing of the sick are based upon psychosomatic principles. Old Doc was a great physician in his day and had he lived a half century later would also have been counted among the great.

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Club Foot Treatment

Results of Continuative Management

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I. Introduction

IN DECEMBER, 1953 the late Dr. H. Page Mauck requested that a Club Foot Clinic be organized in conjunction with a club foot program in order to (separate) remove these patients from the mass of general clinic patients. Under the enthusiastic supervision of the senior author this has been done and is now firmly established. Too much credit cannot be given to the personnel of the Crippled Children's Bureau and the Public Health Nursing Service of the State of Virginia for their role in this project. Largely through their efforts we have been able to initiate early treatment and continue treatment without interruption. The Crippled Children's Bureau has not only supported the hospitalization of these children but it has also established a foster home program which has enabled us to continue the immediate post-hospitalization treatment on a regular uninterrupted out-patient basis. When less frequent visits are required the children are discharged from their foster home and the Public Health Nurse in the field then visits the children in their homes to observe their general health, detect complications in plaster and insure their early and regular return to the clinic. In the meantime, every effort is made to have the patients return regularly to their local crippled children's clinics in order that the initial referring physician may participate in their care.

In the case of non-indigent patients a similar plan could be readily established between the referring physician, his office nurse and the physician to whom the patient is referred.

The present report is based on our experiences in the management of 48 children with 77 club feet since our club foot program was begun in December, 1953. Eighteen control patients, the "inherited" group, with 29 club feet already under treatment were enrolled and 30 new patients with 48 club feet have since been enrolled. (Table I).

From the Department of Orthopedic Surgery, Medical College of Virginia.

Presented at annual meeting of The Medical Society of Virginia, Richmond, October 16-19, 1955.

Recent thorough discussions of the etiology of club feet are available elsewhere; however, a brief review of the etiology, pathology and diagnosis at this point will facilitate the subsequent discussion on treatment¹.

II. Etiology

By congenital club feet in this instance we refer specifically to the most common of all congenital deformities, talipes equino varus. Even though we have treated a number of children with congenital talipes calcaneovalgus their cases are not included because they have presented no great problem.

The exact etiology of congenital club feet is not known; however, in most cases a combination of several factors is probably at fault. These considerations are four, the first two involving the products of conception and its pre-natal surroundings. All four may, however, be modified by external influences such as radiation, viral disease, parental age, multiparity and starvation. The four considerations are: (1) hereditary, (2) faulty or arrested embryonic or fetal development, (3) embryonic and fetal-maternal neurovascular and metabolic disorders and (4) intra-uterine malposition.

Mall and Murphy's division of all congenital deformities into primary deformities (resulting from some inherent defect of or pre-fertilization influence upon the germ cells) and secondary deformities (the fetus or part is conceived without defect but is deformed because of postconception influences or lack of influences) has aptly been applied to the case of congenital club feet by Kite³. Hauser's observations on etiology of club foot perspicuously separate club feet into a larger first (Secondary) type with an excellent prognosis under ideal conditions and a smaller second (Primary) type accompanied by other congenital anomalies, familial occurrences and a poorer prognosis². He emphasizes the importance of distinguishing between these two types not only from the viewpoint of prognosis but treatment as well. (Figs. 1 & 2).

In view of the similarity between some of the severely contracted congenital club feet and the ac-

TABLE I

CLUB FEET	Control Before December 1953	After December 1953	Total
NO. OF PATIENTS.....	18	30	48
NO. OF FEET.....	29	48	77
MALES.....	12	17	29
White.....	0	1	1
Colored.....	12	16	28
FEMALES.....	6	13	19
White.....	0	3	3
Colored.....	6	10	16
MALE FEET.....	19	29	48
White.....	0	1	1
Colored.....	19	28	47
FEMALE FEET.....	10	19	29
White.....	0	5	5
Colored.....	10	14	24
PERCENT BILATERAL			
Male.....	7	12	19 or (39.6%)
Female.....	4	7	11 or (22.9%)
RACE			
White.....	0	4	4 or (8.33%)
Colored.....	18	26	44 or (91.66%)
NO. OF SEVERE CASES.....	16 (88.88%)	16 (53.3%)	32 or (66.66%)
NO. OF MODERATELY SEVERE CASES.....	2 (11.12%)	7 (23.33%)	9 or (18.74%)
NO. OF MILD CASES.....	0	7 (23.33%)	7 or (14.60%)

quired Volkman's ischemic paralysis, a prolonged intrauterine neurovascular disturbance remains a very likely cause in some cases. Maternal metabolic, vascular, degenerative and infectious diseases as well as parental age and starvation, undoubtedly account for many congenital anomalies as well as club feet.

Uterine anomalies, tumors, multiparity and twin pregnancies reportedly are responsible for a large

portion of club foot deformities. The severity of the deformity is proportionally greater when intrauterine malposition exists from the first through the last trimester of pregnancy.

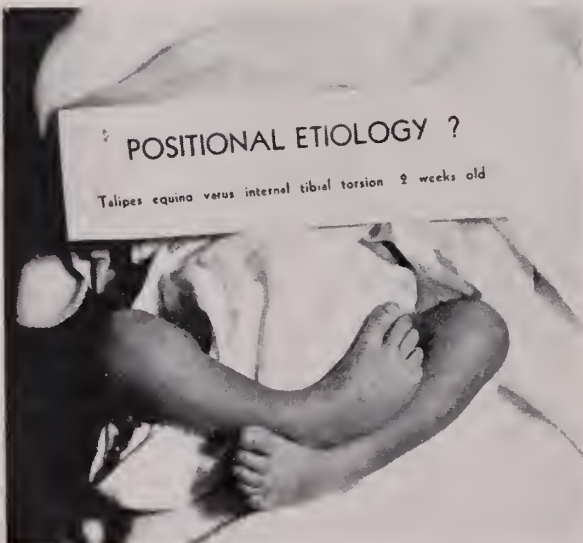
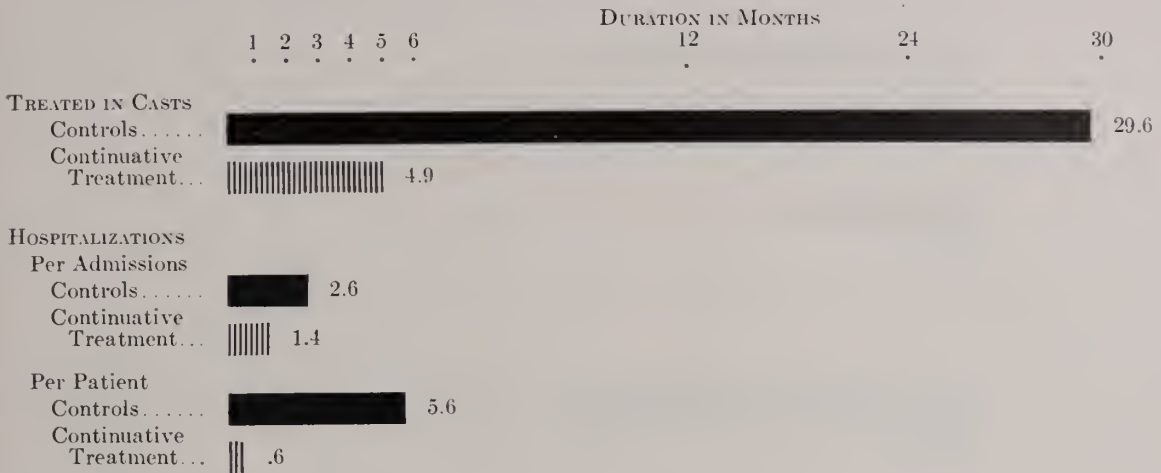


Fig. 1.—Secondary deformity.



Fig. 2.—Primary deformity.

CONTROLS—18 Cases Treated by Various Technicians in the Orthopaedic Department
CONTINUATIVE TREATMENT—30 Cases Followed in the Club Foot Clinic



III. *Pathology*—Static and Dynamic

Actually the entire pathological picture of club feet is a dynamic one and the terms static and dynamic are used here in the interest of clarity.

Static.—Grossly there are three basic deformities composing a club foot: (1) the fore foot is toed in, (2) the hind foot is rolled under to the inner side and (3) the entire foot is plantar flexed into the equinus position.

Other accompanying deformities not consistently seen are (1) shortening of the great toe, or all of the entire first ray of the foot, (2) plantar flexion contracture, (3) internal or external tibial torsion and (4) occasionally the entire lower leg is atrophic and smaller and is described as a "stalk leg". It is felt that this latter component, when present, is a basic part of the congenital deformity either present from the beginning or that it develops as a result of the dynamic process of growth of an individual with a club foot rather than as a result of treatment with corrective plaster casts.

A. Bony—Coincident with these gross anatomical deformities is the abnormal relationship between the preosseous cartilagenous structures of the foot. The metatarsal row is held to the inner side in varus, and the navicular (scaphoid) is displaced to the inner side of the astragalus (talus) exposing the lateral articular surface of the head of the astragalus to palpation on the lateral border of the foot in line with the lateral metatarsals. In the normal foot the astragalar head is in line with the medial

metatarsals. In addition, the astragalus is plantar flexed and correction of this presents a difficult problem inasmuch as very little manipulative control of the astragalus can be achieved because of the absence of musculotendinous attachments. The os calcis (calcaneus) is angulated medially beneath the astragalus and is in plantar flexion by virtue of the strong pull of the Achilles tendon. There is no evidence to support the idea that deformity of the bones of the middle and hind foot is a part of the pathological picture initially. When this is present it is usually due to their uncorrected abnormal relationship.

B. Soft tissue—The soft tissue deforming elements are: (1) the abnormally increased strength and size of the anterior tibial muscle and particularly of the posterior tibial muscle and their resulting increased mechanical advantage associated with the opposite situation of the peroneal muscles, (2) abnormal inserting attachments of the posterior tibial and Achilles tendons, (3) fibrotic contracture of the medial and posterior joint capsules, tendon sheaths and shortening of the neurovascular structures on the inner side of the foot and (4) anomalous supernumerary muscles. In all of our operative corrections we have found that the posterior tibial muscle had inserting attachments to the plantar fascia and over the medial tubercle of the astragalus and medial surface of the sustentaculum tali blending in with the deltoid ligament. In three we found a supernumerary muscle simulating the palmaris longus of the hand by the nature of its insertion into the

TABLE III
COMPARATIVE RESULTS

CONTROLS—18 Cases Treated by Various Technicians in the Orthopaedic Department
CONTINUATIVE TREATMENT—30 Cases Followed in the Club Foot Clinic

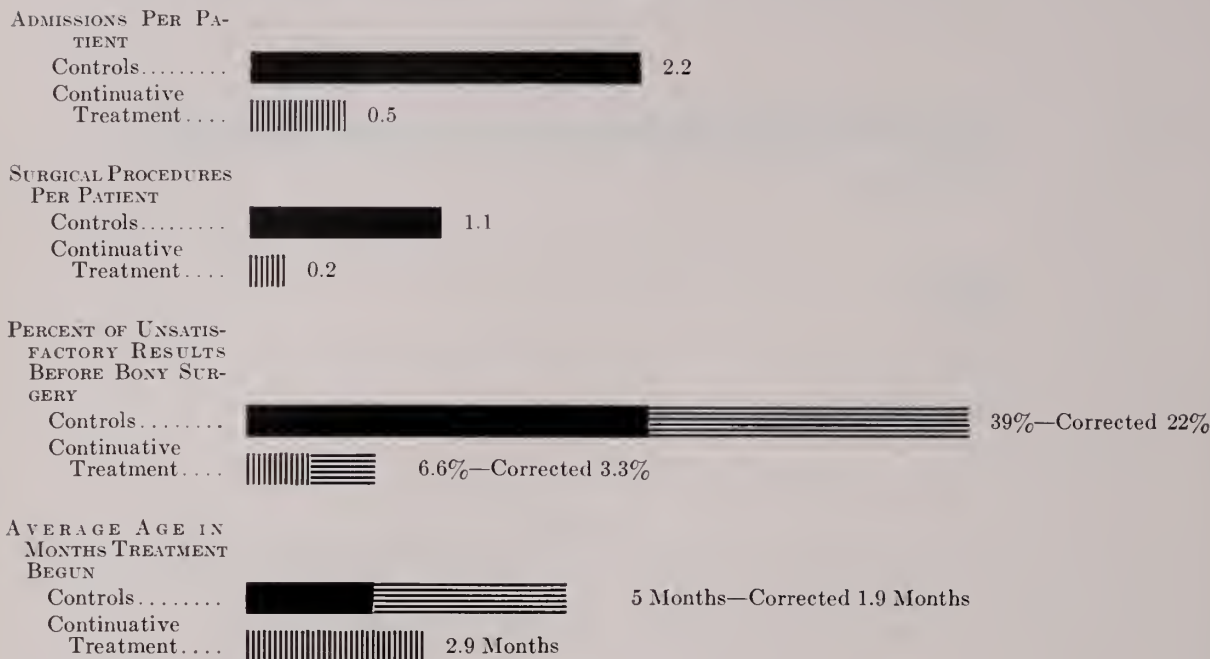


Table No. 3.—The unsatisfactory results in both the control and continuative treatment groups were corrected by radical surgical release. The average age in the control series was corrected by 1.9 months by excluding one case which was eighteen months old.

plantar fascia, and in another there was a deforming contracting band which had resulted from "blind" subcutaneous surgery performed previously. The flexor muscles of the toes rarely contribute primarily to the deformity. The Achilles tendon of the triceps surae is usually always shortened and is often attached more medially on the superior posterior surface of the tuberosity of the os calcis.

Dynamic—A severe club foot deformity will require application of corrective plaster casts at one or two week intervals over a period of many months and perhaps for a year or two. We have come to recognize and appreciate the nature of the repetitive trauma associated with this. The end result of fibrosis following traumatic inflammatory edema and immobilization of the venous and lymphatic return is well known. In order to allow this reaction to subside before again subjecting the foot to further correction we begin delaying the plaster changes to two to three week intervals as soon as the rapidity of the growth of the child will permit. Therefore, there is a race against time between the need to advance skillful correction as rapidly as possible and the subsequent scarring and contracture per-

petuated by the repeated application of less progressive corrective plasters. When the latter process wins the race, as it is apt to do in those inherently resistant, so called "recurrent club feet", or when correction has either been inadequately accomplished or maintained, the problem of future management is indeed compounded. All individuals interested in this subject know well the value of beginning correction immediately after birth and the need to carry the correction to completion as rapidly as the dermatomusculotendinous and neurovascular components of the foot will permit, together with adequate maintenance in the corrected position.

IV. *Diagnosis and Prognosis*

In most cases the diagnosis of club foot can be made by inspection alone. However, more than just a label for the condition is required both by the parents as well as the physician. Determination of whether it is a primary or secondary congenital deformity should be made as soon as possible in view of the fairly good prognosis of the former and the poorer prognosis of the latter. Sometimes this differentiation cannot be made until the results of

early treatment are observed, but in most cases thorough examination by palpation immediately after birth will reveal to the experienced examiner the true nature of the deformity. The primary congenital club foot is more frequently associated with a history of familial occurrence and the presence of other anomalies. Differentiation between these types of club foot is made more difficult when treatment has been delayed, when the infant is past the newborn age, when treatment has been interrupted and when more than one person is participating in the application of corrective plasters or surgery has been performed. The early diagnosis of the degree of severity cannot be over-emphasized inasmuch as a more severe club foot is more difficult to correct and maintain and will require more aggressive treatment over a longer period of time. Quite often the complicating factor is the underestimation of the degree of severity. A mild club foot at birth untreated during the first three to four weeks of life will subsequently present itself as a severe club foot even though the actual contour of the deformity has not increased. More often than not, the contour of the deformity will increase also. In palpating a club foot, one should therefore determine the prominence of the head of the astragalus on the outer border of the foot and its general alignment with the metatarsal rays. The prominence of the tubercle of the scaphoid on the inner border of the foot together with the alignment of the fore foot with the hind foot should be noted. The degree of inner displacement and rolling under of the os calcis and particularly the relation of the tubercle of the os calcis to the posterior aspect of the ankle joint and fat pad of the heel, as well as the shortness of the Achilles tendon, should be observed. By manually applying appropriately directed corrective forces over these anatomical landmarks, the degree of resistance to correction can be evaluated and it is the repetition of this evaluation between plaster changes that reveals the degree of severity as well as the corrective progress. A well corrected club foot should hardly be any less pliable than a normal foot and one should be able to carry the foot into the so called "over-corrected position" in which the dorsum of the foot nearly touches the shin just above the ankle with the heel lateral to the ankle. Observation of the depth of the "dimple" over the sinus tarsi on the outer border of the foot is an excellent index of evaluation. Unenthusiastic observation in these respects can mean mistaken prognosis. Failure to make regular progress may indi-

cate the need for surgical intervention and uncorrected deformities in older children often require the aid of surgery initially. By and large correction of the fore foot can usually be accomplished without surgery. It is the correction of the inversion and equinus of the heel in a very small group that will require operative treatment.

V. Treatment

A. Basic Treatment with Serial Corrective Plaster Casts

The objective in club foot treatment is to overcome the grossly deformed non-functional foot as rapidly as possible and obtain a foot with satisfactory function. Because of the nature of the deformity and its correction to a satisfactory weight bearing propelling anatomical unit on which shoes must be worn, functional correction in this case is practically synonymous with cosmetic correction. Kite and many others have shown that gradual progressive correction produces the best results. In our clinic we have used only plaster casts in the initial attempt at correction. Others have used corrective bandages and various splints and braces, and during the initial stages of correction closed manipulation under anesthesia.

We begin treatment as soon as the general condition of the infant will permit, usually on the second or third day of life. Treatment begun at any later date has allowed the loss of precious time during which much could have been accomplished. Delayed beginning of treatment has been among the most serious obstacles to overcome. Now we are called to see children with club feet as soon as they are recognized in the newborn nursery. However, occasionally a baby with a very mild deformity is overlooked and is therefore not recognized until the return six weeks checkup. By this time a very pliable deformity has become a resistant one.

Initially we apply two-inch plaster bandages to the foot while manually unwinding the curled up foot. (Fig. 3). Depending upon the degree of severity and progress of treatment this may be repeated at one-week intervals, two or three times. Because of rapid growth during the first three months of life plasters should be changed at weekly or ten-day intervals. Also the rapidity of correction during the first month of treatment requires more frequent plaster changes and as correction nears completion progress is much slower and less frequent plaster changes are needed. On the other hand, the reaction from trauma to the soft tissues is continuously aggravated by changing the casts



Fig. 3.—Unwinding first plaster.

too often. As soon as the foot has been unwound plaster shoes are applied while an assistant exerts downward pressure on the flexed knee with the foot held against a flat surface beneath the sole. Corrective forces are exerted over the head of the talus laterally and the tubercle of the navicular, the shaft of the first metatarsal and the inner tubercle of the os calcis medially. The thumb of the opposite hand is used to correct the alignment of the head of the talus. Depending upon the stage of correction the application of the plaster shoe varies in



Fig. 4—Application of plaster shoe snug around heel.

that plaster is cut away beneath the lateral malleolus in the early stages and in the later stages when the foot is being dorsiflexed the plaster shoe is molded tightly behind the heel to hold the os calcis on the flat surface and in dorsiflexion. In addition the plaster shoe must be cut away from around the dorsum of the foot as well as the lateral inframalleolar area to prevent pressure damage to the skin. (Fig. 4, 5 & 6).



Fig. 5—Plaster shoe cut away with molding over head of astragalus laterally (thumb) and tubercle of scaphoid medially (index finger).

In all cases the plaster shoe is then built into a long-leg plaster cast extending to the groin with the knee flexed 90°. (Fig. 7). This is the method devised by Dr. J. Hiram Kite, based on the concept that a club foot deformity must be corrected in its distal segments first. Failure to obtain correction of the fore foot as manifested by the dimple over the sinus tarsi and alignment of the head of the astragalus with the medial metatarsals will not allow eversion of the os calcis and dorsiflexion of the foot. (Fig. 8). If these latter two corrections are forced before the astragalus is properly aligned the foot will be broken in the mid tarsal area and the so called "rocker bottom foot" will be produced. The rocker bottom foot does not serve well, functionally or cosmetically, and is prone to recur in the form



Fig. 6.—Continuation from pictures 4 and 5
 (1) Molding plaster shoe behind heel
 (2) Flat surface beneath foot.
 (3) Assistant exerting downward pressure on knee.



Fig. 7.—Plaster shoe has been built into long leg plaster cast extending to the groin with the knee flexed 90 degrees.



Fig. 8.—Correction of forefoot varus and inversion of hind foot before dorsiflexion is begun.

of a deformity which is a more difficult problem to handle than the original club foot, to say nothing of the difficulty in properly fitting shoes. In an orderly, well planned fashion the correction should proceed by first correcting the fore foot, obtaining the dimple over the sinus tarsi and aligning the head of the astragalus with the first metatarsal followed by eversion of the entire foot at the subastragalar joint prior to any attempt at dorsiflexing the foot and correction of the short heel cord. (Figs. 9, 10, & 11). There are no substitutes or short cuts to bypass this lengthy procedure extending



Fig. 9.—Combined overcorrected position after dorsiflexion with correction of equinus is completed.

over a period of one to eighteen months, depending upon the severity of the case. Once correction is obtained it should then be maintained to keep the foot supple, until the child is old enough and able to walk. During this maintenance period we employ the use of pre-walker club foot shoes with the Denis Browne⁴ splint, manual stretching exercises



Fig. 10.—Dimple of correction over sinus tarsi.



Fig. 11.—Well corrected club feet should be flexible enough to permit the dorsum of the foot to touch lower anterior leg above ankle.

by the parent and walking boot plaster casts. Until the child is walking without evidence of "recurrence" of the deformity we see the patient at frequent intervals, every two to four weeks. Again this is a variable period of time depending upon the severity of the individual case. Post correction observation will therefore vary from a few months to one or two years. Initially club foot shoes for walking are used regardless of how mild the deformity may have been and regular shoes are used only when justified by a permanent pliantly corrected foot. Even so, elevation of the outer borders of the soles and heels is occasionally advised. At each change of plaster corrective progress is rated and it follows that this notation is most accurate when the same observer sees the same patient throughout the course of treatment. Only by this continuative management plan can one accurately and early determine when no further progress is

being made toward the so called, "over-corrected position" and therefore recognize the need for surgical intervention prior to repeated trauma to the foot and consequently the loss of time resulting in more scarring in the foot and delayed walking. Depending upon the state of correction at which time unconquerable resistance is met, various surgical procedures are employed. Our experiences with early subcutaneous operative procedures have led us to discontinue this practice in that the results have been unsatisfactory and also because we perhaps have not mastered this technique in what appears to be blind surgery at a time when one is unable to accurately determine exactly where the correction should be applied. We are opposed to any subcutaneous surgery. Also we have come to believe that small and repeated open surgical procedures at various intervals during the management of a severe resistant case do not produce as good a result as does one well planned, accurately timed operation designed to accomplish all that could not be accomplished with the use of serial corrective plaster casts. Only the indicated surgery should be done. If all but lengthening of the heel cord has been corrected in plaster, then a heel cord lengthening tenotomy should be done. But before this is done one should accurately determine that this is indeed the only uncorrected element of the foot. The presence of one uncorrected component of the club foot should always stimulate the search for other uncorrected elements and an operation designed to overcome one resistant part does not facilitate the subsequent correction of the other uncorrected parts. Enthusiastic, aggressive, methodical correction in plaster therefore cannot be over-emphasized. However, failure to make further corrective progress should be noted as early as possible in order to avoid breaking the foot. This need for surgical intervention cannot be recognized properly until plaster casts have been applied consistently for several months, namely six to nine months or longer.

If at this stage the need for a heel cord lengthening and posterior capsulotomy is clearly indicated there should be no delay in carrying this out and continuation of correction in plaster should be resumed inasmuch as this operative intervention is only an aid in the treatment and not a curative procedure. Early discontinuation of progressive correction both post operatively and in the non-surgical case is a constant cause of trouble. Temporizing with a foot that is prone to "recur" both during the post corrective maintenance observation period,

and, in the surgical case, in the post operative continuation of correction is a block over which all of us have stumbled. If any doubt exists as to the presence of "recurrence" resumption of serial corrective or maintenance plasters is indicated.

B. Surgical Treatment

We have successfully employed in several of our resistant cases the operation recently advocated by Dr. Fred Thompson⁵. This is based on our belief that unsurmountable resistance, when present, extends throughout the entire foot and not just one element of the club foot and the resistance is due to a combination of factors consisting of (1) increased strength and size of the posterior tibial muscle and its covering accompanied by abnormal inserting attachments of this structure, (2) scarred contracted joint capsules of the medial joints of the foot and (3) a contracted shortened posterior capsule and Achilles tendon. In every case in which we have released these structures we have found this to be true in addition to the finding that the scaphoid was still medially displaced in front of the head of the astragalus. The operation calls for exploration of the medial side of the foot and surgical release of all obstructing structures. In most of the cases we have operated we have divided the posterior tibial tendon at its insertion and freed it from its retinaculum, excised the medial astragalo-navicular, subastragalar and posterior crural capsules, lengthened the Achilles tendon and when indicated lengthened the middle component or all of the deltoid ligament. Post operatively the foot is held in the corrected position for four to eight weeks or until pliable and since all of these patients have been old enough to walk, ambulation was begun immediately upon removal of the plaster. Walking plaster casts may be used if necessary. The results so far have been uniformly gratifying. Correction of the foot at operation should be done cautiously since the amount of correction is limited by the tightness of the neurovascular bundle. Visual observation and palpation of the pulsation of the posterior tibial artery prior to closure of the wound will indicate the point at which correction of the foot impairs the circulation. (Fig. 12 & 13).

VI. Complications

The common complications we have encountered before treatment was begun are prematurity, other anomalies, feeding problems and starvation, other illnesses, skin diseases, tumors, etc., and delay in reporting for treatment. After treatment has been

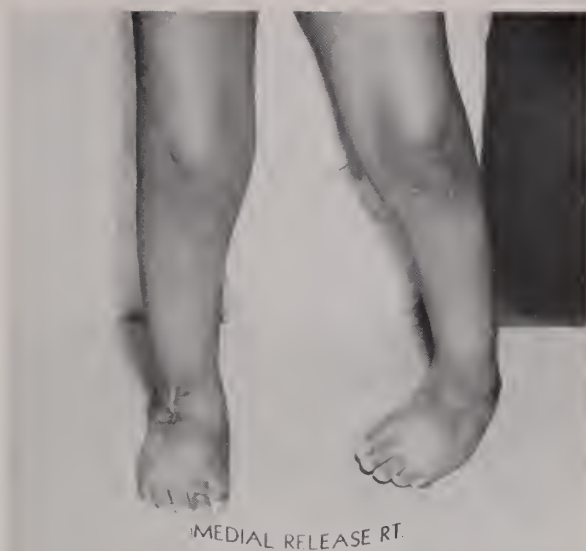


Fig. 12.—Bilateral Club feet with "stalklegs" Has had bilateral "blind" subcutaneous surgery during early correction and a heel cord lengthening and posterior capsulotomy on a second occasion. At a third operation a radical medial release was done on the right foot. The left foot shows one of the indications for the radical medial release.



Fig. 13.—(1) Untreated club foot of a sixty year old patient. (2) Note that weight is borne on the head of the plantar flexed astragalus. (3) Special made shoes are necessary.

begun complications to watch for are pressure sores and inadequate circulation, dermatitis, inadequate correction, failure to resume casting at the earliest sign of recurrence, failure to maintain adequate correction until the patient is walking, other medical or surgical illnesses, and failure to recognize the need for surgical intervention resulting in a broken "rocker bottom foot", the correction of which cannot be undertaken until five to seven years later when

bony reconstruction can be done. Surgical complications result from inadequate blind subcutaneous surgical releases, multiple minor open surgical procedures performed too early before an adequate trial in corrective plasters, circulatory inadequacy in plaster post operatively, and failure to follow through with treatment in plaster post operatively.

VII. Summary

Continuative club foot treatment has been discussed in detail from the viewpoint of etiology, pathology, diagnosis, prognosis, treatment and complications. Differentiation between primary and secondary deformities has been emphasized as well as the continuative treatment in plaster beginning on the second or third day of life. The indications for surgical intervention have been described and are few. Complications before and after treatment has been begun have been listed. Transfer of the anterior tibial tendon laterally and the posterior tibial tendon anteriorly through the interosseous

membrane or laterally to the peroneal tendons has not been employed. Comparatively results of multiple and singular management are shown.

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How To Fight Malpractice Threats.

Do you know what to do when a patient claims malpractice?

Some doctors don't. They either talk too much, or they talk too little.

While "there's no foolproof system for avoiding a malpractice action," concedes J. Joseph Herbert, chief legal counsel for the Michigan State Medical Society, in an article appearing in the May issue of MEDICAL ECONOMICS, "... there are several steps the physician can take to protect himself from the moment any patient indicates dissatisfaction."

1. "If your patient so much as hints he thinks something's wrong, immediately raise your guard and treat him with polite but noncommittal formality."

"Remember that malpractice is defined as a breach of duty on the physician's part. A bad result is not proof in itself of a breach of duty. Above all, don't gratuitously assume the blame for a bad result," the lawyer warns. "Speak in carefully chosen phrases."

2. "At the first hint of a malpractice claim, notify your insurance company. Don't wait until the word

'lawsuit' is mentioned. Phone your carrier as soon as you think the patient might ultimately take action. The company's representatives will be glad to advise you what to do."

3. "If suit seems possible, immediately review your office records. Then go to the hospital and examine all relevant records there."

Full preparation has saved cases for many a doctor, Herbert points out. But, he quickly adds, "if any lawyer other than your own asks to see your records, refuse."

4. "Always be completely frank with your own lawyer and with your insurance company's lawyers. It's their job to help you best only if they know all the facts—even the ones you may think unimportant."

5. "Finally, if you're sued—or suspect a suit is brewing—seek out some of your own colleagues. Get their advice and help."

"Don't be embarrassed at telling them the whole story. . . . They may be able to help you decide whether to settle or to fight. And they may be able to testify for you, if that should prove necessary."

Joint Manipulation in General Practice

JOHN McM. MENNELL, M.B., B.CL.D.M.R.E.
Washington, D. C.

MORE AND MORE our profession is coming to realize that joint manipulation can relieve joint pain which may be either recent or may have persisted for years in spite of excellent conservative conventional care. But it remains a mystery to most physicians how this relief by manipulation is brought about. Such cures are still attributed by some to "psychotherapy" for a basically psychoneurotic condition. This tends to produce a deterioration in patient-doctor relations.

Perhaps the misunderstanding on this subject arises because manipulation is a type of therapy whose basic tenets are not stressed in medical schools, whose principal practitioners are not medically trained, and whose legitimate indications and rational end results are unknown to the bulk of the medical profession. Loose talk of "little bones" being put back where we know that no little bones exist and of hypothetical lesions which have never been demonstrated to anyone's satisfaction has done little more than to increase professional bias towards it.

It is my main purpose, therefore, to present to you the concept of joint function, the loss of which is pain producing and the restoration of which is pain relieving. The movements to be described are easily performed at any normal synovial joint and their range can be demonstrated radiologically; they are painless and specific and therefore physiologically normal.

Not only will a loss of one of these movements impair the normal voluntary movement at a joint, it will also per se produce pain in that joint or at any distant place from the joint which shares a common dermatome with it.

Voluntary joint function is entirely dependent on the integrity of these secondary movements which are not under the control of voluntary muscles and which I call "joint play".

The existence of joint play is best demonstrated by considering one of the simplest synovial joints—the second metacarpo-phalangeal joint. This joint is most easily handled and examined.

The movements which make up the range of joint play at this joint are: 1. Long-axis extension. In

this movement the base of the phalanx is drawn away from the head of the metacarpal bone which is stabilized. This opens up the joint space in the long axis of the finger. 2. The antero-posterior glide. The joint space is opened up anteriorly or posteriorly, neither movement bearing any relationship to flexion or extension. 3. Side-bending. This movement opens up the joint space on either side and bears no relationship to abduction or adduction. 4. Rotation. This movement is that of simple rotation of the base of the phalanx on the immobile head of the metacarpal bone, and bears no relationship to circumduction.

These movements have been more fully and graphically described in the literature. In performing them neither the ligaments of the joint nor the muscles in relation to the joint should be stretched; only the slack in them is taken up.

There is a similar range of joint play at all the synovial joint in the limbs and is easily demonstrated. At each joint the range is specific to the joint but common to the same joint in all normal people. Space does not permit such a demonstration. However, if this fact can be accepted then it is only logical to broaden the expression "all synovial joints in the limbs" to "any synovial joint anywhere in the body". There are one hundred and twenty of these joints in the vertebral column. It is illogical to deny that something will occur in spinal joints just because they cannot easily be handled or visualized.

Manipulation, as we understand it, is a therapeutic maneuver designed to restore a lost movement in the range of joint play and is in no way concerned with the restoration of movement in the voluntary range. The object of manipulation is to relieve pain from joint dysfunction; incidentally the voluntary range of movement may be restored but this is because there is no longer involuntary interference to prevent the articular surfaces from moving freely on one another and therefore the muscles are free to move them.

The pre-requisite to successful manipulative therapy is, of course, correct diagnosis and one's diagnostic examination should be directed to the detection of the loss of a movement of joint play. Further, one must recognize the bizarre pattern of referred

Presented at annual meeting of The Medical Society of Virginia, Richmond, October 16-19, 1955.

pain which may occur from joint dysfunction. This often bears little relationship to the accepted patterns of segmental nerve supply.

An equally important facet in diagnosis is found in history taking. The history of the onset of a patient's symptom is important. Joint dysfunction most often results from an unguarded or uncontrolled movement and its onset will be sudden. The patient's localization of the symptom will often direct the examiner's attention to a joint and the constancy of the localization will be important even if there is referred pain as well. The symptom of pain from simple joint dysfunction will be relieved by rest and aggravated by activity. There will be no evidence in the history of other disease which could manifest itself in this sequence of events.

On physical examination, it is characteristic of joint dysfunction that there is limited movement in the range of joint play, with or without gross impairment of the voluntary range of movement. Pain occurs at the limit of movement and disappears when the examining stress is removed. At the limit of movement the pain produced should be a reproduction of the pain of which the patient complains.

All examining movements for joint dysfunction should be passive for, by definition, search is being made for the loss of movements which cannot be actively performed and also to differentiate signs arising from joint and muscle pathology. Confusion of symptoms and signs may arise when both muscle and joint dysfunction are present concurrently as so often happens in recent traumatic cases and invariably occurs in long-standing cases because secondary changes occur in muscles which have been in protective spasm for any length of time.

Of course bone and joint disease as a cause of joint dysfunction must be carefully ruled out before advising or performing joint manipulation. As a therapeutic measure following manipulation, treatment of any secondary muscle involvement must be undertaken so that normal joint movement may be maintained; otherwise the joint dysfunction will readily recur.

In performing joint manipulation attention to the detail of technique is vital to the success and safety of therapy. Only one articular surface should be moved on another at one time. Only one movement should be performed at one time. No forceful movement, overmovement or abnormal movement should ever be used.

Manipulative technique must be learned on the normal before any attempt is made to move a joint in which there is abnormal function. Too often

failure of manipulation is blamed on the therapy when the blame lies with the manipulator. Manipulation should not be a treatment of trial and error. To manipulate a joint where there is a history of increased stiffness after rest often courts disaster. Fractional manipulation is often indicated especially when intra-articular adhesions are thought to be present; *i. e.*, repeated manipulations, each one restoring a part of a lost movement to be sure of avoiding joint damage and reaction which may lose movement rather than regain it.

If, in general practice, you can satisfy yourselves that a patient's symptoms are arising from simple joint dysfunction then I think you are justified in asking a well-trained manipulator to treat your patient for that specific complaint just as you would ask a physical therapist to give physical therapy for you or a radiographer to carry out an x-ray examination for you. But you should make the diagnosis yourself. The day should not be too far distant when simple manipulations could be carried out in the general practitioner's office. But this cannot be until the teaching of this branch of orthopaedics is included in the curriculum of medical schools and until postgraduate courses are available to you.

I would like to close by quoting from the writings of one of the greatest teachers of the past. Some ten years or so before the Declaration of Independence was written, Mr. Percival Pott said: "If what I have to urge is not capable of being verified and confirmed by experience, it must sink into nothing; but if, upon trial, it shall be found by the majority (as it has been by me and others) to be not only true and practicable, but conducive to the ease and benefit of the afflicted, it ought to have as much weight, though delivered by a living writer, as if it had proceeded from the remotest antiquity: its use, not its date, should give it value. If practitioners, since the time of Albucasis, had been contented with his doctrine, and never had ventured to think for themselves, surgery had not been what it now is, and its great merit would still have consisted in the multiplicity of its hot irons."

Mr. Pott was talking of surgery. In considering manipulative therapy, his words could well have been written today. But this exhortation must be tempered by the admonition: learn well what to do, how and when to do it before personally attempting therapeutic manipulation, but do not deprive your patients of relief from pain because of prejudice.

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Carcinoma of the Prostate With Metastases to the Penis

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THE PENIS is rarely involved by a metastatic tumor. The most recent report listed 35 examples to which the authors added 4 of their own⁴. Two of their cases were metastases from the prostate. Discrepancies as to the exact number of prostatic carcinoma with penile metastases are found amongst various articles reviewed due apparently to failure to include instances in the foreign literature. Hellwig and Waller⁵ thought their case was the tenth. The cases of Wilson et al¹¹, and Espinosa et al³ raises this figure to 12. The above-mentioned two cases of Hamm and Weinberg⁴ increases the total to 14. The following case report would therefore appear to be the fifteenth example of this rare phenomenon.*

CASE REPORT

E. G., a 60-year-old, white man was admitted April 27, 1954 with complaints of a "knot in the penis", for the past three weeks. The past history revealed increasing narrowing of the urinary stream, dribbling and nocturia. Physical examination showed a hazel-nut-sized, firm, non-tender lesion in the mid-shaft of the penis, slightly to the left of the midline. On rectal examination there was a hard, nodular prostate suggestive of carcinoma. The positive laboratory findings consisted of a slightly elevated acid phosphatase. The penile lesion was biopsied on the 3rd hospital day (see pathology report below), and the patient was discharged shortly thereafter to be followed as an out-patient. At the time that he left the hospital he was given 24 mg. of TACE a day.

The patient was next seen in the office on June 4, 1954. The prostate gland was not quite so hard, and there was no evidence of induration of the penis. He was seen at monthly intervals until Sept. 21, 1955. During this time several different estrogen preparations were used, namely, premarin, TACE

and stilbesterol. Despite this therapy, the prostate continued to increase in size, and seemed to extend upward to involve the seminal vesicles. Urinary frequency gradually became more pronounced, and from time to time hematuria was noted. At no time was there any complaint of priapism.

On November 26, 1955, the patient re-entered the hospital where a transurethral resection, and orchiectomy was done. Two months following discharge from the hospital the patient's predominant complaint has been mild urinary bleeding.

PATHOLOGIC FINDINGS

Biopsy of penis. Gross (S-54 3244). The specimen consisted of an ovoid piece of skin and underlying tissue, 2.5 by 1.3 by 1 cm. In the center was a previously incised, poorly-outlined, granular nodule, approximately 1.5 cm. in diameter, and occupying the depth.

Microscopic - Section showed multiple vascular spaces characteristic of the corpus cavernosa of the penis. Most of these sinuses were plugged with tumor masses composed of compactly-arranged, large, polygonal cells with bizarre, vesicular nuclei. (Fig. 1). Mitoses were frequent and averaged 1 per high power field. The tumor showed no differentiating features and glandular structures were not observed. (Fig. 2 and 3). Many of the tumor masses were mixed with the blood of the cavernous spaces. In general the tumor was confined to the blood sinuses, and the over-all pattern suggested that the penis was involved by diffuse embolization of the sinuses of the corpus cavernosa.

Tissue removed from transurethral resection. Gross. (S-55 8951). The specimen consisted of 6 irregular cylindrical fragments of tissue submitted in formalin. The largest was 3 by 0.5 cm.

Microscopic - Sections showed a highly anaplastic epithelial tumor distorted by the method of removal. Portions of prostatic tissue were occasionally seen infiltrated and partially replaced by the tumor. In better preserved areas solid sheets and masses of tumor cells were present with poor attempts at glandular formation. (Fig. 4). The cells varied mark-

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*McGarran's paper⁷ is unavailable for study, as it was not found in several large libraries checked. Inclusion of this author's case would therefore make the present case the sixteenth to be reported.

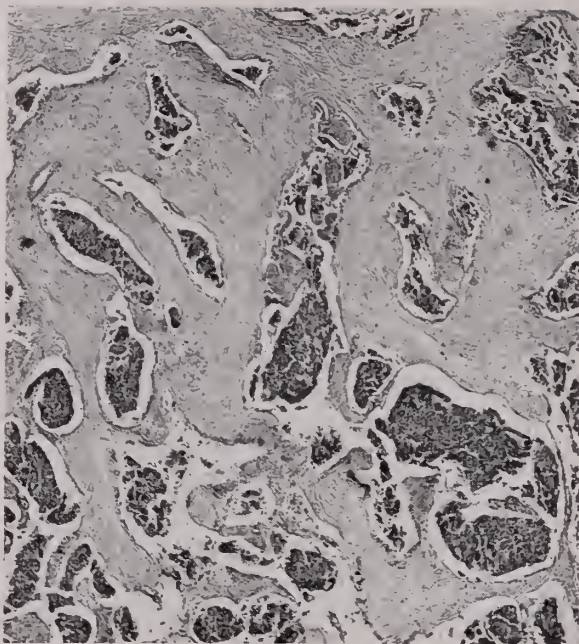


Fig. 1. Vascular spaces of the corpus cavernosa plugged with tumor cells. x 40.

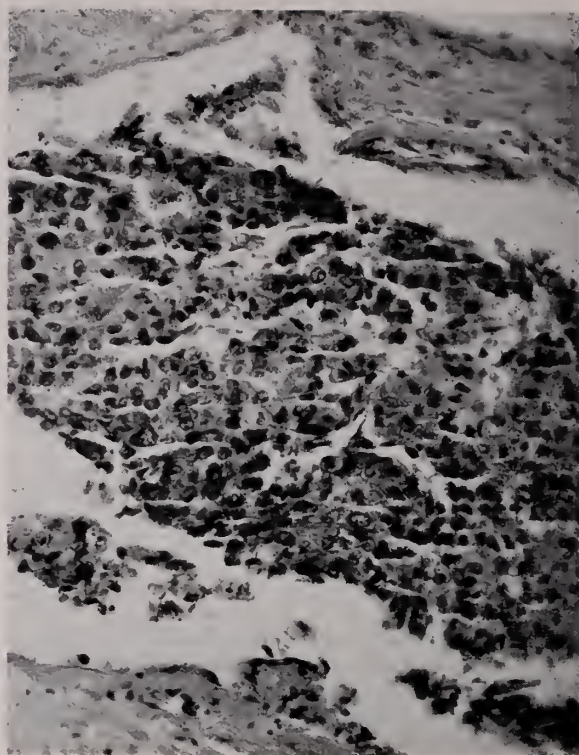


Fig. 3. High power view of Fig. 2 to show cellular details of neoplasm. x 400.

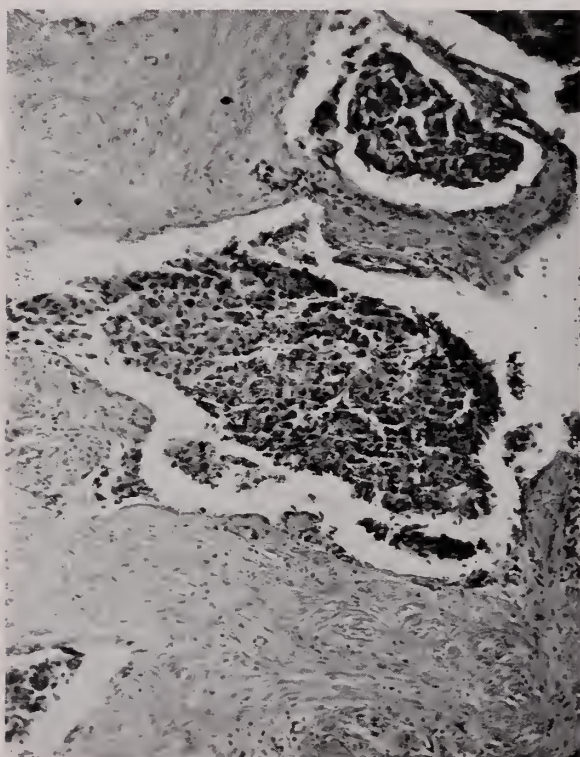


Fig. 2. Medium power view to show two of the blood sinuses filled with tumor cells. x 150.

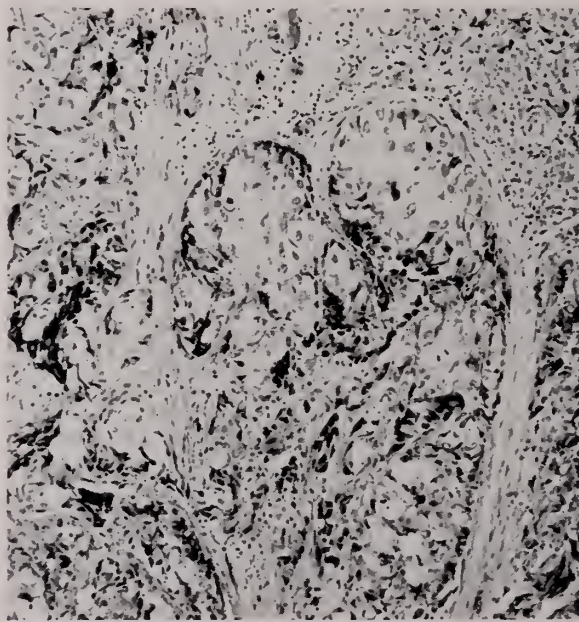


Fig. 4. Photomicrograph of primary prostatic neoplasm removed by transurethral resection. x 300.

edly in size and shape, and were often extremely large with bizarre nuclei and prominent nucleoli. The cytoplasm was vacuolated or finely granular. Mitoses were frequent. Many venous channels were plugged with tumor cells. (Fig. 5). A comparison of this material with the lesion from the penis

showed that the neoplasms were identical.

Diagnosis: Carcinoma of prostate with metastasis to the penis.

COMMENT

The pathogenesis of metastatic lesions of the penis has been variously explained on the basis of

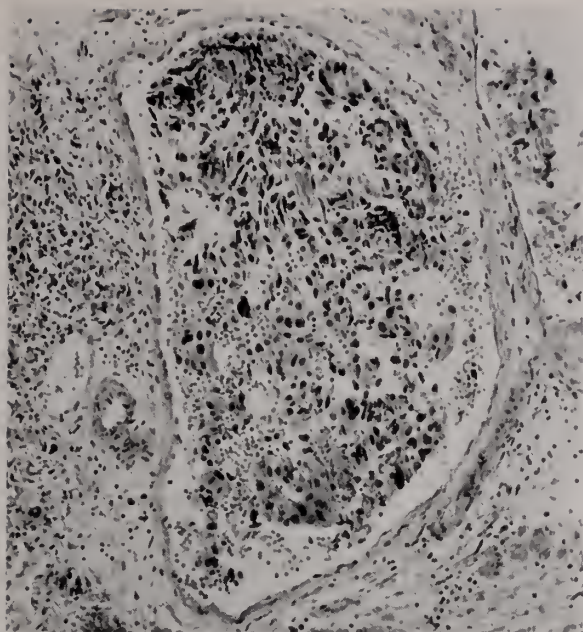


Fig. 5. Venous channel within prostate plugged with tumor cells. $\times 300$.

retrograde venous spread, retrograde lymphatic permeation and direct extension. In the present case there was extensive involvement of the cavernous spaces of the penis, in addition to the presence of tumor thrombi within venous channels of the prostate gland. It therefore seems likely that the mode of spread from the prostate was via the venous system through the deep dorsal vein of the penis.

The absence of priapism is surprising since the blocking of the cavernous spaces of the corpora cavernosa by tumor is generally given as the reason for the development of priapism. From a study of the previously reported cases of metastatic neoplasms of the penis, it would seem that patients are just as apt not to have priapism as well as to complain of it.

SUMMARY

A case of carcinoma of the prostate with metastasis to the penis is described.

The mode of spread was thought to be via the prostatic veins, and through the deep dorsal vein of the penis.

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Doctors Are Churchgoers.

How religious is the U.S. doctor?

Very religious, reports MEDICAL ECONOMICS in article appearing in its May issue. From a recent survey of the country's physicians, the business magazine learned that "about two-thirds of the respondents say they attended church services at least once in the month preceding the survey. Of

these, more than half went four times or more."

What churches do the doctors attend? "Nearly 60 per cent of the surveyed physicians consider themselves Protestant, in one of some twenty different denominations (led by Presbyterians, Methodists, and Episcopalians). Seventeen per cent are Catholics, 15 per cent Jewish."

Rupture of the Esophagus

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RUPTURE of the esophagus was a clinical medical entity even before the development of the esophagoscope during the latter decades of the 19th century. After this development and use of the scope, ruptures became more frequent.

The most common causes of this condition are:

1. Passage of esophagoscope.
2. Instrumental dilatation of strictures.
3. Foreign bodies.
4. Rupture of esophageal ulcers.
5. Spontaneous rupture of esophagus from persistent vomiting—often seen in alcoholics.
6. Penetrating wounds or external violence.
7. Perforation by malignant growths.



Fig. 1. Shows tracheotomy in place and a large trapped pocket of air between the cervical spine and esophagus.

There are three common sites of rupture in areas where the esophagus is narrow. These are at (1) the cricopharyngeal area, (2) the site at the level of the aortic arch and the left main bronchus, and

(3) the site immediately above the point of narrowing where the esophagus passes through the diaphragm. Most observers report at least 50% of perforation at the first site. This is the cricopharyngeal area or the cervical esophagus. Cervical perforations are less dangerous than those occurring in the middle or lower one-third of the esophagus. The posterior wall is more often involved than the anterior wall leading to air in the fascial plains of the neck.

The advent of sulfonamide and antibiotic therapy has altered our concept as well as our results in the treatment of esophageal perforation. Prior to their use, this condition, in the vast majority of instances, was followed by the fulminating course of an acute mediastinitis and death. Because the effective antibiotic agents are more commonly administered at the slightest provocation, the treatment of patients who are suspected of having esophageal rupture is often begun early, and fatal mediastinitis either controlled or aborted. Nevertheless, it is important to establish the diagnosis definitely and to realize that antibiotic treatment alone is insufficient to prevent death.



Fig. 2. Patient in the early part of his illness showing marked emphysema.

The symptoms and signs resulting from perforation of the esophagus vary considerably with the position and nature of the injury. Fever, pain, and

swelling form a symptom complex of positive diagnostic value. Pain is the first symptom noted and may increase so rapidly in severity that deglutition becomes impossible. It is accompanied by marked tenderness over the site of perforation and swelling which may be caused by emphysema, cellulitis or abscess formation. Dyspnea is often observed as the result of pressure or swelling in the region of the larynx. Fever is an early and important index of the severity of the infection. Increasing general malaise, chills and delirium may occur with the formation of purulent material.

Diagnosis is made from a careful history, the presence of the above symptoms, and x-ray findings. X-ray is an invaluable aid in diagnosis as well as assistance in following the progress of infection in the peri-esophageal tissues.

General acceptance of the principle of early surgical drainage of the site of infection, which is the unfailing sequel of every perforation of the esophagus, is now an accomplished fact in most cases. The nature and extent of the lesions secondary to perforation have great influence on the majority rate. This rate varied from 15% to 65% depending on whether the infection involved just the mediastinum or whether a complicating empyema was present.



Fig. 3. Patient at time of his discharge from the hospital.

A similar case to the one to be reported in this paper could not be found in the literature. In this case conservative treatment was considered the one of choice and proved to be wise therapy. It is not advised for the average case of esophageal rupture.

L. S., a 52 year old, white male was first seen in my office on April 29, 1954. He gave the following

history. On Saturday, April 24th, he swallowed a piece of pork bone which lodged in his throat. He finally vomited it up after violent coughing and straining. Following this episode he had painful, difficult deglutition, and was only able to take liquids. The following day he saw his family doctor who examined him but felt that no medication was indicated.

On April 28th, three days after the initial episode, he developed chills with fever, swelling of the neck, and with much effort and pain could take only a moderate amount of liquids. The next day he consulted Dr. Philip Cox of Fredericksburg. At that time he was acutely ill, having fever with marked cellulitis of his neck and edema of the laryngeal region. He was given 600,000 units of penicillin and referred to me.

On April 29th, L. S. was observed as an acutely ill patient; temperature 104°, cellulitis of the neck, edema of the epiglottis with difficult swallowing, and dyspnea with stridor. He was referred to Johnston-Willis Hospital. His laboratory work showed Hgb. 82%, Wbc. 21,400, Pm. 84, L. 7, Mo. 9. X-rays taken on the same day showed (1) edema of the soft tissues, (2) a trapped pocket of air in front of the cervical spine and behind the esophagus in the pre-vertebral fascial space. The rest of the esophagus was negative, barium being used as a contrast medium. There was no foreign body noted. Chest films were negative. Conclusions: Apparent perforation of the esophagus by a previously ingested foreign body which was not found to be present, swelling and edema of the tissues and a pocket of trapped air between the esophagus and spine. The patient was started on a combiotic, aureomycin, and intravenous fluids.

On April 30th, the patient's dyspnea became worse with evidence of laryngeal obstruction, and a tracheotomy became necessary.

On Monday, May 3rd, the patient developed air in the left side of the face. A puncture wound under the left jaw released an odorless air which quickly reformed.

The clinical picture remained the same except for the disappearance of chills and a reduction of fever. His temperature leveled off at 100° and remained there.

On May 6th x-rays showed subcutaneous emphysema involving thorax, hypopharynx, carotid sheaths and mediastinum.

On May 7th the hypopharynx was swollen like a balloon, air being in the bucco-pharyngeal fascial space. It was released by a stab wound in the

hypopharynx. The air reformed and was repeatedly released.

The patient was fed by intravenous medication until May 9th when it was felt safe to pass a feeding tube. The tube was passed without difficulty, and intravenous fluid was discontinued. Aureomycin and combiotic were the antibiotics continued.

X-rays taken on May 14th gave the following conclusions: (1) Subcutaneous emphysema, (2) emphysema and fluid in the superior mediastinum, and (3) emphysema in the carotid sheaths. No bronchoesophageal fistula was noted when iodized oil was used as a contrast media. Oil passed into the lungs, due to the esophageal obstruction, by overflowing into the trachea.

After fluoroscoping the patient in an upright position on the following day, Dr. William Johns resected the seventh rib posteriorly and opened the superior mediastinum releasing fluid and air. The emphysema in the carotid sheaths, hypopharynx, and neck subsided immediately. The next day the patient was able to take fluids by mouth and could breathe without a tube; therefore both feeding and tracheotomy tubes were removed.

The patient did well post-operatively, but on dressing the chest wound there was found to be present a bronchial fistula, which healed spontaneously after removal of the drain.

The patient was discharged on the fortieth day, the ninth day following his chest operation. He lost forty pounds of weight during this period.

One month later he returned to regular work and has been well ever since.

This paper discusses the problem of esophageal rupture and presents an unusual case of this condition which responded well to conservative treatment.

I should like to express my appreciation to the men who saw this patient with me and helped in his recovery, Dr. E. T. Gatewood, and Dr. William Johns.

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Paget's Disease of the Nipple

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PAGET'S DISEASE is a rare unilateral eczematoid affection which involves the nipple region in women and which ultimately terminates in malignancy, first described by Paget of London in 1874.

Diagnosis: Is made by biopsy and demonstration of Paget cells.

Treatment: Radical mastectomy with axillary dissection.

Symptoms: The malady commences insidiously as a sharply circumscribed eczematous inflammation of the nipple and immediate contiguous areola. There may be a slight scaling at first and later as a result of the presence of a sticky, viscid fluid which extrudes, there is more or less crusting. Itching is an early symptom and pain is frequently present. The lesion does not respond to anti-eczematous treatment and never heals spontaneously. The affected plaque is sharply defined and densely infiltrated. Eventually the process gradually extends peripherally into an area many centimeters in diameter, or the entire breast is involved. The nipple becomes retracted and fissuring and erosion occur. Sooner or later in from one to three years a superficial ulcerating or a deep nodular carcinoma develops and ultimately the entire breast may be affected. As a result of lymph node involvement the contiguous axillary nodes also may be invaded. The connection between the eczematous disorder and the carcinomatous condition which succeeds it has not been definitely settled. Some people feel that it is two lesions and that the nipple lesion is the result of the underlying carcinoma which is always found. Paget cells are large, sharply defined, unenucleated cells with deeply staining nuclei and a retractive, faintly staining protoplasm. Their presence is pathognomonic of the malady. Unless there are great contraindications the treatment of choice is a radical mastectomy with axillary node dissection.

Prognosis: In early cases by doing a radical breast amputation and axillary dissection the prognosis is good. In extensive and advanced cases the prognosis is the same as that of carcinoma of the breast.

CASE REPORT:

Chief Complaint: "Scabbing of the nipple for about a year".

Family History: No known cancer.

Past History: Three children alive and well—nursed all three. No breast abscess or nipple lesions.

Present Illness: About one year ago first noticed the left nipple "scabbing"—paid little attention to this, but used various ointments found around the house. There was no itching. Occasionally the clothes would stick to the nipple. She heard over the radio "sores that do not heal may be cancer". A year after the onset she consulted her family physician Dr. J. Glenn Cox of Hillsville, Virginia. Dr. Cox referred her immediately to Dr. William Kaufman, a dermatologist in Roanoke, Virginia, who on her first visit biopsied the lesion. Paget cells were found in the biopsy by Dr. Gale. Dr. Kaufman recommended a radical mastectomy.

Physical Examination: Well developed and well nourished, 50 year old white female in no pain or distress, although she was aware of her diagnosis and why she was referred to the hospital. "Don't seem like nothing much wrong to me but the doctors say cancer so I came to get the breast taken off." The only positive finding on physical examination was the left nipple.

BREAST: No masses or tenderness could be found in either breast. The left nipple showed a small V-shaped fissure that was difficult to see. Fig. 1. (Two weeks had lapsed since the biopsy was done.) There was no retraction or other abnormalities. The impressive part of this lesion was the lack of positive findings and the normal appearance of this nipple. No axillary nodes were palpable.

Course in Hospital: The patient was prepared for a radical mastectomy on the basis of Dr. Kaufman's biopsy which showed Paget's cells.

Operation: A radical mastectomy was done with an axillary node dissection. The pathology report was as follows: (1-14-56)

Gross Description: A left breast with pectoral muscles and axillary contents attached. The nipple is slightly crusted and a small fissure is present on the lateral side. Section through nipple reveals no gross pathology. Multiple sections of breast reveal normal appearing breast tissue. Dissection

of axilla reveals seventeen nodes from 0.4 to 2 cm. long. All are grossly negative.

Microscopic section of the nipple reveals that the epithelium is heavily invaded by large rounded cells with rather clear cytoplasm and large hyperchromatic pleomorphic nuclei. The epithelium of three of the main ducts of the nipple is made up of similar cells.

Diagnosis: Paget's disease of nipple with underlying duct carcinoma. No axillary metastases found.

T. M. THORNHILL, M.D.

Discharge Note: The patient had an uneventful recovery following the radical mastectomy and will

demonstrated in the biopsy the treatment of choice is a radical mastectomy with axillary dissection. The prognosis is good in these cases that are diagnosed early. Paget's disease of the nipple should always be suspected and ruled out in the unilateral eczematous irritation of the nipple.

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Fig. 1

be followed in the tumor clinic every six months. We feel that her prognosis is excellent.

CONCLUSION

Any unilateral eczematous lesion of the nipple should only be treated for a period of two to three weeks with ointments and if it does not completely heal a biopsy should be done. If Paget's cells are

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610 Church Street
Lynchburg, Virginia

ANNUAL MEETING

THE MEDICAL SOCIETY OF VIRGINIA

ROANOKE, OCTOBER 14-17, 1956

Unsuspected Chronic Subdural Hematoma

A Five Year Survey

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CHRONIC SUBDURAL HEMATOMA has been regarded as an extremely interesting condition for over a century and in spite of marked advances in diagnosis and treatment, it has continued to perplex even the most astute clinicians. In the eighteenth, nineteenth and early twentieth centuries the lesion was chiefly of interest to pathologists because nearly all cases were diagnosed at autopsy, and it was considered exceedingly rare until it was brought to the serious attention of the medical profession in 1925, by Putnam and Cushing¹. Since that time many clinics have reported large series of cases that were diagnosed and surgically treated, but rare indeed have been reports of series of cases which were not found until post mortem examination.

The diagnosis and treatment of chronic subdural hematomas have recently been reviewed in this journal by Meredith³, who has commented on unusual and interesting cases which have been treated at the Medical College of Virginia Hospitals. At this same institution in the five year period from 1947, through 1951, there were 1600 autopsies. In five of these a chronic subdural hematoma was found, which for the purpose of this paper has been defined as appearing to be at least ten days of age (i.e., when membrane formation has taken place), which was not suspected during life.

REPORT OF CASES

Case 1. J.D., a 50 year old white male, was injured in an automobile accident in November, 1947, and was hospitalized elsewhere for a few days because of a small linear fracture at the base of the skull. He did not lose consciousness. Four weeks later he was found dead in his hotel room. Autopsy revealed complete occlusion of the circumflex branch of the left coronary artery and an old subdural hematoma containing about 30 cc. of fluid in the right parietotemporal region. The subdural hematoma was apparently asymptomatic during life.

This manuscript is an abridged version of a paper written while Dr. Wright was a senior student at the Medical College of Virginia in 1955.

Case 2. M.M., a 43 year old white male was found lying unconscious at the foot of the steps to his apartment and was dead on arrival at the emergency room. Blood alcohol level was 0.11%. There were abrasions of the skin on the nose and forehead and ecchymoses of the eyelids. Autopsy revealed a marked fatty change in the liver and an acute massive hemorrhage into the already existing membrane of a chronic subdural hematoma, measuring 15 x 9 x 2 cm., and overlying the left parietotemporal region.

Case 3. B.R., a 4 month old Negro female was admitted on January 1, 1949, with a history of an upper respiratory infection for a week with fever and drowsiness and a generalized convulsive seizure several hours before admission. On admission to the hospital she was comatose and having right sided clonic convulsions. Temperature was 103.4° F., pulse 136/min., and respirations 36/min. Examination revealed convergent strabismus, pharyngeal injection with a purulent discharge, moist rales in both lung bases, and a moderately loud systolic murmur audible over the entire precordium. The hemoglobin was 7.5 gm.%, RBC's 3,960,000 mm³, WBC's 16,400 mm³, and the peripheral smear showed 58% neutrophils. A lumbar puncture was performed and study of the spinal fluid revealed protein 386 mg.%, sugar 20 mg.%, WBC's 141 mm³ with 93% neutrophils. Culture of the spinal fluid revealed pneumococci, type 12.

She was treated with blood transfusions and received penicillin intramuscularly and intravenously and sulfadiazine by hypodermoclysis and later by mouth. Mastoidectomies were performed bilaterally and revealed purulent material which had invaded to the dural surface on both sides. Cysternal taps were done daily and penicillin injected intrathecally. The patient responded poorly and remained unconscious throughout the entire hospitalization; she went downhill and expired on the seventeenth hospital day. Autopsy revealed a thick yellowish white exudate on both cerebral hemispheres and an old subdural hematoma with early membrane formation over the posterior aspect of most of the cerebellum

markedly compressing the left cerebellar hemisphere and vermis.

Case 4. D.W., a 9 month old white female was delivered as a breech and had been quite irritable since birth. Growth and development had apparently been normal. Five weeks before admission she fell from her high chair and since that time had appeared clumsy to members of the family. The night prior to admission she fell from her crib and shortly thereafter became drowsy and developed labored respirations. On admission to the hospital she was unconscious, ashen in color, the anterior fontanel was tense and bulging and the left pupil was larger than the right one. Neither pupil reacted to light. There was massive intraocular hemorrhage obscuring both fundi which appeared to be older than one day. Respiration was stertorous and there was extensor spasm of both upper and lower extremities, about equal on the two sides. Subdural taps were performed bilaterally and 90 cc. and 100 cc. of bright red blood were removed from the right and left sides respectively through the coronal sutures. Very shortly after admission she vomited and aspirated the material. Tracheal aspiration gave some temporary relief but respirations became loud and strong, then quiet and shallow, and finally ceased. Autopsy revealed the membranes of old subdural hematomas over both parietotemporal regions, and acute hemorrhage had occurred into both of these.

Case 5. J.T., a 53 year old Negro male, who had been a known chronic alcoholic for many years and had a history of grand mal convulsive seizures for the previous year, was found in a stuporous condition and brought to the emergency room. Temperature was 103.4° F., pulse 90/min, and blood pressure 190/150 mm Hg. The right pupil was larger than the left and there was cogwheel rigidity of both arms and the left leg; the right lower extremity was flaccid. Babinski's sign was present on the right and the knee jerk was absent. Lumbar puncture revealed a pressure of 270 mm. H₂O, protein 20 mg.%, and no cells were seen. Examination of the blood revealed hemoglobin 14 gm.%, RBC's 3,320,000 mm³, WBC's 19,300 mm³, with 84% neutrophils, 9% lymphocytes, and 7% blasts. Urinalysis revealed specific gravity of 1.014, albumin 2 plus, and a trace of sugar. Blood sugar was 236 mg.%. The patient died very shortly after arrival at the emergency room. An autopsy revealed early portal cirrhosis and a large subdural hematoma over the right parietotemporal region which appeared to be 10-14 days old. No cerebral damage was evident, and no cause for the seizures could be demonstrated.

In this series, a case of unsuspected chronic subdural hematoma was found in approximately every three hundred and twenty autopsies. In one instance it was encountered incidentally in a patient who died of a coronary artery occlusion. In another, the hematoma was found in an unusual location, the posterior fossa, in an infant with pneumococcal mastoiditis and meningitis who had been treated for three weeks with cysternal taps and penicillin intrathecally. In the other three cases, the patient died rather suddenly and apparently as a result of the chronic hematoma; in two of these death was attributed to acute and massive hemorrhage into the cysts of old subdural hematomas. It is of interest to note that all of these patients were first seen at the Medical College of Virginia Hospital in a state of acute illness or immediately following their demise.

SUMMARY

1. Five recent cases of chronic subdural hematoma that were not suspected during life have been presented. These were found in the autopsy files of a large teaching hospital in the five year period from 1947 through 1951.

2. Great progress has been made in the last three decades in the recognition and treatment of this condition, but nevertheless chronic cases have escaped detection.

3. A little-known complication of chronic subdural hematomas, that of acute and presumably fatal hemorrhage into the membranous cyst has been demonstrated in two of these cases.

Note: The author wishes to express his appreciation to the Department of Pathology of the Medical College of Virginia, and especially to Dr. Frank L. Apperly, Professor of Pathology, Medical College of Virginia, for invaluable assistance in the preparation of this paper.

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Mission to Baghdad

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IN THE Fall of 1955 the World Health Organization asked me to visit Iraq as a consultant to the School Health Service there. Since the original request had come from the government of Iraq, it was thought best that the study commence as early after the opening of schools as possible.

The School Board granted me a "leave of absence", and on October 5, 1955, I went directly to Geneva which is European Headquarters of the United Nations and of its various organizations including the World Health Organization. Here, I was given my first briefing and had an opportunity to learn something about the country of Iraq. Then, I went to Alexandria, Egypt, where the headquarters of the World Health Organization for the Middle East is established. I received further briefing and was sent on to Baghdad, arriving October 15, in rather warm weather—temperature 103 degrees—but not as warm as earlier in the year when the temperature went as high as 120 degrees or more. The humidity is very low—14-16—and believe me, one dries out quite quickly.

The country itself is the area which was formerly known as Mesopotamia, and within its borders are such familiar Bible names as Babylon, Ur of Chaldes, Nineva, Samara and others.

We can divide the country into three parts, northern, central, and southern. In the northern part are found the mountains, hills, and the summer resort areas in the valleys. There is more vegetation in this area, but, for the most part, the hills are bare. One misses the beautiful green hills seen in many countries. Here, also, much of the wheat and barley and other farm products are grown. The temperature is lower and the average rainfall is 16-18 inches, mostly during the months of November, December, and January. The City of Mosul is located in this part and is the second most populous of Iraq. To the southeast of Mosul is the city of Kirkuk where the great oil fields are, also the site of the eternal fires. The eternal fires are caused by escaping gas on the grounds of oil fields. This has been going on for thousands of years and no way has ever been devised to collect the gas. It could be of great financial value if ever a way is found to harness it.

Excerpts from a talk given at the Richmond Academy of Medicine, February 28, 1956.

The central area in which Baghdad is located is desert. Rainfall is about 8 inches per year, and were it not for irrigation, there would be no growth. Fortunately, Baghdad is on the Tigris River and the fields around get water from this and smaller streams.

The southern part borders the Persian Gulf, also the Tigris and Euphrates Rivers join at Basra, the third largest city. Basra is a port city where the the ocean going vessels dock. Humidity is rather high, with an average rainfall of about 20 inches. The area is swampy, marshy, and malaria abounds. The incidence of malaria has been as high as 90-95%. During the past five years, with spraying, ditching, and technical aid from the World Health Organization, the incidence has ben reduced to about 5%.

The public health problems of the country are many. Of course, there are many diseases due to lack of sanitation such as hookroom, round worm, and bilharza. Bilharza is an infection caused by one of the nematodes and manifests itself by blood in the urine. In addition to this, trachoma is very prevalent—as high as 50% of the population have had or have the disease in some districts. With a high incidence of parasites, there is also much anemia. This was noted in most schools visited. At present the larger cities still use cesspools. However, the City of Baghdad has begun construction of a sewerage system. One thing of especial note around Baghdad is what is popularly called Baghdad Boil. This can be eliminated as more and more of the mud dwellings are disposed of since the parasite lives in them during the ovulating stage.

In the school health field, there is much work to be done. However, a beginning has been made. In most areas there is a doctor assigned for this work. He is handicapped for lack of time and distances are great. In order to make a living, as the state only pays him a very small salary (\$170 per month) for half time, he must have his private clinic. Therefore, he cannot visit all parts of the area to which he is assigned.

It is my firm belief that, with time, many of these ills will be eliminated as the doctors seem well trained and capable of giving treatment, although there is a shortage of doctors. There are only about 900 in a country whose population is 5,100,000, most of whom live in the larger cities. This, too, will

be overcome as at the medical school in Baghdad, about 100 are graduated each year. Another medical school is being built in Mosul in the northern part of the country and should be ready to operate in two or three years. The future of Iraq looks bright. The government is already building schools, hospitals, improving the old hospitals, dams, bridges,

and public works. They will build and expand from the base they already have in medicine, in education, in internal development, and must some day be one of the great states of the Middle East.

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Increase in Scurvy.

The abandonment of "pot liquor" and "milk from the family cow" as traditional baby foods—and neglect of daily orange juice—were blamed for an increase in scurvy among infants in Tennessee.

Dr. Calvin Woodruff said in the June 2nd Journal of the American Medical Association that the number of cases seen at Vanderbilt University Hospital, Nashville, had jumped from eight in 1926-34 to 45 in 1950-54. From 1926 to 1954 there was a total of 103 cases.

Scurvy, caused by a deficiency of ascorbic acid, occurs most frequently between the ages of seven and 11 months. It can produce bone deformities, and its symptoms sometimes are like those of poliomyelitis. Ascorbic acid can be obtained from several sources, including orange juice (probably the best source), fresh unpasteurized milk, tomato juice, and even "pot liquor," the water in which green vegetables and fat meat have been boiled.

The abandonment of these old feeding customs and the sterilization of milk—without substituting anything for these sources of ascorbic acid—have resulted in the increase of scurvy.

Pasteurization of milk is desirable despite the resulting loss of ascorbic acid. Addition of ascorbic acid to baby formulas is a good practice, but the philosophy behind this should not be carried to the point where all nutrients needed by the infant are

added to the milk formula. "The most important attribute of a normal complete diet for children is a variety of food and it is the responsibility of parents to help infants develop wide taste acceptance as early in life as possible. The importance of an antiscorbutic (ascorbic acid or a synthetic scurvy preventive) in the diet is a first lesson. Consequently it is unfortunate to have the point of this lesson lost in the maze of fortified formulas and multivitamin preparations with which we are confronted every day. Supplementation by orange or other citrus fruit juice or a vitamin preparation is mandatory, but in many cases has been neglected because this was not recognized, because of lack of adequate medical care or failure to follow medical instructions, and for economic reasons or through ignorance, carelessness, or neglect. . . ."

Symptoms of scurvy, which is sometimes confused with rickets, are varied, but irritability, tenderness of the legs and failure to move or use them are most characteristic. Bleeding of the gums, a high temperature, bone changes, discoloration of eyelids and hemorrhaging skin lesions also appear.

Treatment consists of giving the child a small amount of ascorbic acid, usually in the form of orange juice. The response is dramatic and the infant is usually symptom-free within three or four days.

MACK I. SHANHOLTZ, M.D.
State Health Commissioner of Virginia

Questions and Answers Dealing with Poliomyelitis Vaccine

With the many changes that have taken place in methods of procedure in administering Salk poliomyelitis vaccine, it is natural that confusion has arisen in the minds of many and that numerous questions have been put to the State Department of Health by the citizens in their desire to overcome this genuine bafflement. Believing that these same questions have occurred to others, it has been thought well to present them here with answers compatible with our present knowledge.

What is the dose of vaccine, how many doses are given and at what intervals?

The dose in all cases is 1 cc. Three doses are given, the second, four to six weeks after the first and the third, seven months or more after the second.

What is the maximum effective interval between the first and second doses?

The effect of the first injection will not be lost if the second is delayed for six months to a year, or even longer. There is a word of caution, however. Eighty per cent of children are sensitized by the first dose and in the other 20 per cent the second injection serves as a primary sensitization. Unless the doses are given in the recommended intervals there may be a sense of partial security that does not exist.

Why call the third dose a "booster"?

It has become accepted that the first two doses of Salk vaccine, given from four to six weeks apart, are spoken of as the "primary immunization", the first effective dose being called a "sensitizing dose".

When the third dose is given at least seven months later, the effect produced is called "full immunization". This dose raises the level of antibody titer high above that attained with the first two doses.

How long after the second may the third dose be given and still be effective?

It is recommended that the third dose be given not sooner than seven months and not longer than twelve months after the second. It is believed, however, that it will be effective if given after the

latter interval.

What is the preferable route of administration?

Intramuscular injection. This method produces a somewhat higher antibody response than subcutaneous injection.

What is the risk of inducing poliomyelitis infection by the inoculation of vaccine under the present standards of safety?

The risk is negligible.

How long after expiration date is vaccine safe?

Any polio vaccine released or cleared after May 27, 1955, when Minimum Requirements of the Public Health Service were amended, is considered to be safe for an indefinite period of time after the expiration date. With preservatives now in use and with storage at ordinary refrigerator temperatures, it seems that the present dating of polio vaccine is conservative. It is believed that adequate potency is retained for at least several weeks after the expiration date, and probably much longer, when the vaccine is properly stored.

How long can the vaccine be saved and used after the vial has been gone into?

If a good technique is used in piercing the stopper of the vial, the remaining contents may be kept and used if properly refrigerated.

What is the possibility of vaccinated children transmitting infections to others?

None. There is no live virus in the vaccine to cause infection of the child into whom it is injected.

If the child is in the incubation stage of some other communicable disease at the time an injection is given, will the vaccine be effective?

Viruses, like bacteria, are specific in their stimulation of antibody production and the dose should be effective.

If nose and throat operations are indicated, should they be postponed until some definite interval after administration of the vaccine?

Elective nose and throat operations are not usually performed during periods of high poliomyelitis incidence. If delay will not endanger the patient's life, it would be advisable to give two doses of vaccine and wait until a month after the second dose before

having the operation performed.

Should poliomyelitis vaccine be given during the summer months?

At a meeting held on May 2, 1956, the Surgeon General and other members of the Public Health Service, representatives of professional groups, of the Association of State and Territorial Health Officers, and of the National Foundation for Infantile Paralysis agreed that administration of the vaccine should be continued through the summer months, even in the face of rising incidence of poliomyelitis. This policy has been adopted by the State Department of Health.

MONTHLY REPORT OF BUREAU OF COMMUNICABLE DISEASE CONTROL

	May	May	Jan.-	Jan.-
	1956	1955	May	May
			1956	1955
Brucellosis	2	4	7	10
Diphtheria	4	0	21	11
Infec. Hepatitis	43	85	252	688
Measles	5976	719	18845	2647
Meningococcal Infec.	10	5	47	53
Meningitis (Other)	7	--	38	--
Poliomyelitis	1	16	6	24
Rabies (In Animals)	21	17	180	212
Rocky Mt. Spotted Fever	1	6	5	9
Streptococcal Infec.	510	595	3229	4155
Tularemia	1	1	6	6
Typhoid Fever	6	0	13	16

New Physicians' Directory.

The 19th edition of the American Medical Directory, listing almost a quarter million physicians, was published May 26 by the American Medical Association. The edition, the first since 1950, contains 3,122 pages and gives information on 240,638 physicians in the United States, its dependencies and Canada, according to Editor Philip E. Mohr, of the A.M.A. directory department. It also lists American graduates temporarily in foreign countries.

Since the 1950 Directory, more than 250,000 changes of address have been recorded in the files of the directory-biographical department; 46,348 names have been added; 24,225 have been deleted because of death, and 1,172 deleted for other reasons.

In the 1950 Directory, the total number of physicians listed in the United States was 201,277; in the 1956 edition, the number is 218,061, a gain of 16,784.

The Pacific states, as in 1950, show the largest increase in physicians for 1956, with a gain of 23 per cent over the 1950 figures; the South Atlantic and Mountain states show gains of about 16 per cent, and the Central, Middle Atlantic and New England states show small gains. California leads

in the number gained, with 20,763 physicians in 1956 as compared with 16,668 in 1950, a gain of 24.6 per cent. Florida, showing an increase of 49.8 per cent, now has 4,530 physicians as compared with 3,025 in 1950. Texas shows a gain of 1,025 physicians; Ohio a gain of 990; Michigan, 963; and New York, 934. Among the smaller states showing a substantial increase in the number of physicians are Arizona, New Mexico, Oregon, and Utah. Slight losses in the number of physicians are indicated in Arkansas, Illinois, Iowa, Missouri, Vermont, and West Virginia.

A table showing the number of physicians by states classified as to type of practice indicates 30 per cent of the physicians in the United States are in general practice; 10 per cent give special attention to a specialty but do not limit their practice to it; 31 per cent limit their practice to a specialty; 11 per cent are serving internships or residences, with an additional 6 per cent in other full-time hospital services; 5 per cent are retired or not in practice; 4 per cent are not in private practice; and 3 per cent are temporarily in military service in various government agencies.

Current Currents

THE ADVISORY COMMITTEE ON POLIOMYELITIS has recommended an extension of the group eligible to receive polio vaccine. The State Department of Health has accepted the recommendation and authorized an extension of the group to include all for whom it is permissible under Federal regulations, namely 0 through 19 years and pregnant women.

THE NEW DIRECTORY of the American Medical Association is reported ready for distribution. The directory, first since 1950, will contain information on more than 240,000 physicians in the United States, the territories and Canada.

More than 250,000 changes of address have been recorded since 1950; 46,348 names have been added; 24,255 have been deleted because of death and 1,172 deleted for other reasons. The total number of physicians listed in the U.S. is 218,061, a gain of 16,784 since 1950.

California, Florida, and Texas have gained the greatest number of physicians. Apparently physicians like the warmer climates.

A copy of the directory will soon be available at State headquarters to assist the staff in better answering your inquiries.

THREE FILMS have been added to the AMA Motion Picture Library for use by state and county medical societies. They are: (1) "Alcohol and the Human Body"—portraying the course that ethyl alcohol takes when it enters the human body in the form of beverages. Black and white—10 minutes; (2) "Heart Disease—Its Major Causes"—consisting of pictures of patients illustrating the various situations that arise from heart disease. Black and white—10 minutes; (3) "Tobacco and the Human Body"—analyzing the contents of tobacco smoke and demonstrating some of the physiological effects of smoking. It sums up the factors to be considered in deciding whether or not to smoke. Black and white—15 minutes.

Further information on any of these films may be obtained from the State Office.

THE AMA PRINTING PLANT is closing after 70 years of operation. The AMA Journal and the various specialty journals will now be printed in Dayton, Ohio. According to AMA, most of its equipment is obsolete, with many of the presses being more than 40 years old. It is believed that the change will bring about a considerable saving in printing costs.

CONTRIBUTE NOW TO THE
AMERICAN MEDICAL EDUCATION FOUNDATION

THE SECOND IN A SERIES of health insurance pamphlets, "Some Fundamentals of Health Insurance", will soon be mailed to the membership. Voluntary health insurance has been developing with great rapidity in recent years and physicians, like many other people, sometimes find it difficult to keep up-to-date on developments. The Committee on Prepaid Hospital Insurance earnestly recommends that our members read the pamphlet carefully.

THE NEW MILITARY DEPENDENT MEDICAL CARE PROGRAM should be of great interest to all practicing physicians since it sets up the financial machinery for furnishing private medical care to hundreds of thousands of wives and children of servicemen. Some pertinent facts concerning the program are outlined below:

All dependents may be treated in military facilities "subject to availability of space, facilities, and capabilities of staff," with the medical officer in charge of making the conclusive determination as to whether the particular facility is able to handle the particular dependent.

Only spouses and children of active duty personnel are eligible for medical care from private physicians and in private facilities "under such insurance, medical service or health plan or plans" as the Secretary of Defense may contract for, after consulting Secretary of Health, Education, and Welfare.

Freedom of choice for spouses and children between military and private facilities is restricted by the following provision: The Secretary of Defense may limit or prohibit the use of private facilities in any area where in his opinion military facilities are adequate to care for the service families.

Private care program will provide: (1) hospitalization in semi-private accommodations up to one year for each admission, including all necessary services and supplies furnished by hospital; (2) medical and surgical care incident to hospitalization; (3) complete obstetrical and maternity service, including prenatal and postnatal care; (4) physician or surgeon's services prior to and following hospitalization for bodily injury or surgery; (5) diagnostic tests and procedures, including laboratory and x-ray examinations accomplished or recommended by the physician incident to hospitalization. *Note:* Also included under private care may be surgery in a physician's office, x-rays or laboratory tests outside the hospitals, but not "what is normally conceived to be outpatient care".

The main problem facing the Department of Defense is that of choosing a workable method of contracting for private medical and hospital care. There are several possibilities: Blue Cross, Blue Shield, arrangements with state medical societies, commercial insurance or home town care with government paying according to fee schedules.

JOSEPH E. BARRETT, M.D.
Commissioner, Department Mental Hygiene and Hospitals

Who Are the Patients in Our Mental Hospitals?

NOTE: This is the sixth and last of a series of statistical articles prepared by the Department's Statistician. This article will show the length of stay in hospital and types of patients discharged from the hospitals, with charts which will give graphic pictures of these characteristics. It is hoped that this and the preceding articles have been of value in informing the medical profession in Virginia regarding patients in the mental hospitals.

JOSEPH E. BARRETT, M.D.,
Commissioner

The previous articles regarding the characteristics of patients resident in State Hospitals and the admissions to State Hospitals are not entirely complete until the characteristics of patients discharged are added to the picture.

For the fiscal year ending June 30, 1955, except for a few that were known to have died while on trial visit before discharge, there were 2,290 patients discharged alive, either directly from the hospital or after a period of up to one year from trial visit.

Of primary interest of those discharged is the length of stay in the hospital, especially the first admissions, and the improvement from hospitalization.

Of the first admissions discharged, which constituted 1,286 patients or 56% of the total discharges, 789 or 61.4% were discharged with less than three months of hospital residency, 322 or 25.0% from three months to one year of residency, and 107 or 8.3% from one to two years. (Chart No. I). This is a total of 94.7% discharged with less than two years of hospital residency.

Of the 1,004 readmissions discharged, 450 or 44.8% were discharged in less than three months residency for this admission, 386 or 38.4% from three months to one year and 118 or 11.8% in one to two years. This totals 954 or 95% discharged after less than two years of residency for this admission. (Chart No. II)

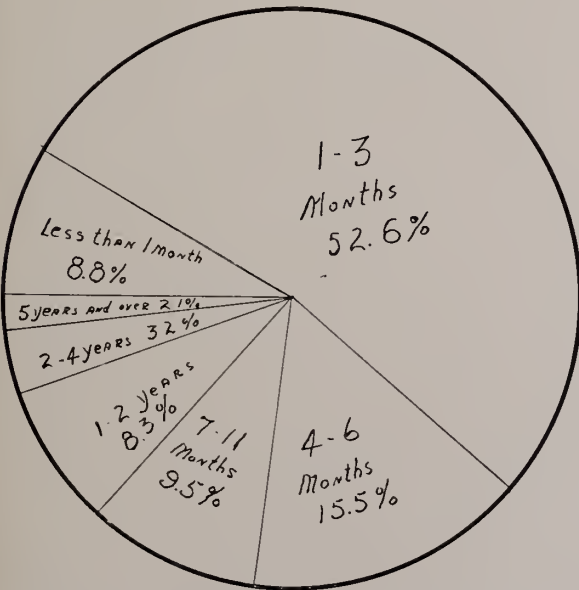


CHART NO. I—Length of residency in hospital of first admissions discharged from Virginia State Mental Hospitals during the year ended June 30, 1955.

Contributed by EDNA M. LANTZ, Statistician, Department Mental Hygiene and Hospitals.

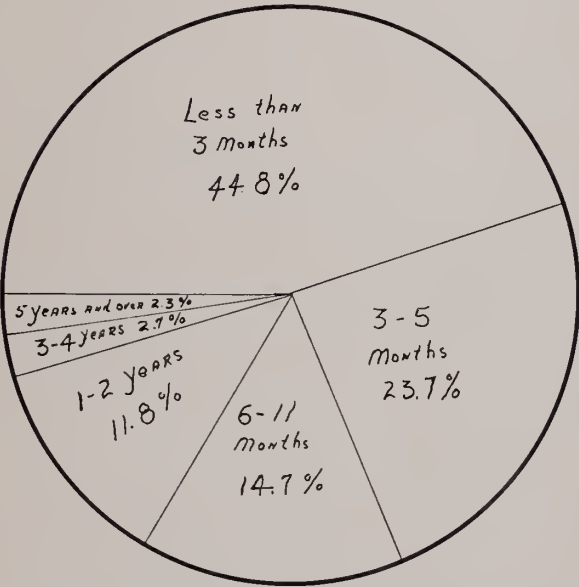


CHART NO. II—Length of residency in hospital for this admission of readmissions discharged from Virginia State Mental Hospitals during the year ended June 30, 1955.

The conditions of patients discharged during the year showed that improvement had been made by their hospitalization. Of the 2,290 discharged, 30.7% were discharged as recovered, 57.0% as improved and 4% as without mental disorder. Thus, only 8.3% were discharged showing no improvement or condition unclassified. (Chart No. III)

The various mental disorders of the 2,290 dis-

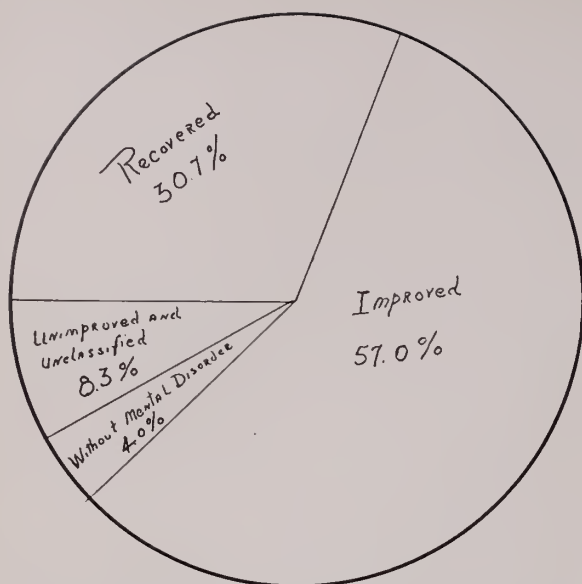


CHART NO. III—Condition on discharge of patients discharged from Virginia State Mental Hospitals during the year ended June 30, 1955.

charges, according to their frequency, are: functional psychosis 37.7%, alcoholics 21.5%, psycho-

neurosis and personality disorders 12.1%, chronic brain syndromes 5.8%, senile-arteriosclerotics 5.8%, mental deficiency 4.1%, syphilis of C.N.S. 1.9% and all others combined 11.1%.

In this article no comparison of admissions and discharges has been made for the year. The comparison of admissions and discharges for the same year creates a fallacy because they are not the same persons. Many of the discharges are patients that have been admitted in prior years. This article is added to the statistical series as information on the length of stay, classification and condition on release of patients discharged. Special studies are in the planning stage to show the discharge characteristics of the admissions as to rate of release by classification, ages and other characteristics and the results will be published when the studies are completed.

This concludes the present statistical series, with the hope that the information has been of value for more understanding of the patient characteristics in Virginia State Mental Hospitals.

Social Workers in Medical Office.

The medical social worker has moved from the hospital and outpatient clinic to the private physician's office.

Dr. H. M. Margolis and Harold Mendelsohn, M.S.W., Pittsburgh, explained in the May 26th Journal of the American Medical Association the role a social worker can play in a private practice.

The influence of environmental and personal factors upon health is generally recognized today. Physicians often can help the patient solve some of his emotional problems, but if they are too involved or time consuming, a social worker may be invaluable.

Medical social workers have long worked in hospitals and outpatient clinics, usually with indigent patients, but poverty should not be the criterion for need of social work help. The private patient, as well as the indigent, has fears of disease or disability, worries about family adjustment, and dissatisfaction with themselves, their neighbors, or their work—all of which can adversely affect health

or recovery. Specially trained to deal with the social stress factors in a patient's life, the social worker can help the patient to understand better the effects of his reactions to many life experiences and pressures in his society.

Such aid can be extended only to selected patients—those who have illnesses directly connected with stress and those who are willing to undertake such treatment. Even with them, the social worker must overcome the patients' resistance to further treatment and their fear that casework implies mental illness or the inability to handle their own problems.

Some patients who have been helped by medical social caseworkers feel that the physician has made it possible for them to work out their problems. They also see this assistance as proof of their physician's real interest in them and as a method of practicing "comprehensive medicine."

Dr. Margolis is from the school of medicine of the University of Pittsburgh and Dr. Mendelsohn from the school of social work.

The Medical Society of Virginia . . .

The Chicago Conference of Legal Counsel

The following is a brief report covering the activities of the Conference of Legal Counsel for Medical Societies held in Chicago on April 19 and 20, 1956, under the auspices of the American Medical Association.

The conference opened on April 19, with approximately fifty attorneys, thirty or forty Executive Secretaries, and a number of physicians and others present, a total attendance of well over one hundred. The meetings lasted from 9. A. M. to 5 P. M. each day, and the principal subjects discussed were the following:

- Organized Medicine and the Anti-trust Laws.
- Corporate Practice of Medicine.
- Grievance Committee and Disciplinary Proceedings.
- Medical Professional Liability.
- Interprofessional Codes of Conduct for Physicians and Attorneys.
- Lobbying and Tax Problems.

Each subject was allotted a definite period of time, and the discussion of each subject under consideration was handled by a separate panel of four attorneys, the moderator making a general presentation, and the other three speaking on particular phases of the problem. This was followed by a question and answer period of about one hour, in which the several speakers answered written questions submitted by members of the audience. The speakers on the several subjects had been selected because of special knowledge or of experience in connection therewith, and this added greatly to the value of the conference to those in attendance.

It would probably serve no useful purpose to report in detail here on all the panel discussions. However, a few of the highlights should be of interest.

The subject of State and Federal Anti-Trust Laws and their application to organized medicine is involved, highly technical and confusing, and the basic fact situations to which the statutes may be applied are so different that no accurate statement can be made as to what a court will do in a specific case. The general principles of the problem were presented by Mr. A. Leslie Hodson of Chicago, General Counsel for A.M.A., after which the case of

United States v. Oregon State Medical Society, 343 U.S. 326, decided by the Supreme Court of the United States in April, 1952, was discussed by Mr. John J. Coughlin, Attorney for the Oregon State Medical Society, who participated in the trial and the hearing on appeal. The Supreme Court held that the Government had not proved that prepaid medical care as furnished by a non-profit Oregon corporation on a contract basis under a plan sponsored and approved by the Oregon State Medical Society was in violation of the Sherman Act. The failure of the trial court to make findings of fact on the issues, and the direct appeal to the Supreme Court, which eliminated the development of the case in the Circuit Court of Appeals, detracts from the value of the case as authority. Mr. Warren E. Magee, Attorney for the Medical Society of the District of Columbia, then discussed the District Society—A.M.A. case arising out of group health insurance contracts for government employees—a case in which the Supreme Court found the Associations guilty under the Sherman Act and imposed fines. In both of these cases the court ruled on very narrow issues, leaving many important questions open for further decision.

Probably the most vital question under discussion was the Corporate Practice of Medicine. Mr. Howard Hassard, Attorney for the California Medical Association, reported on the protracted litigation in that State dealing with the "Complete Service Bureau", a so-called non-profit corporation organized by laymen to furnish medical care to persons who had purchased health certificates from the corporation at a cost of \$2.50 per month. The corporation employed physicians to treat the subscribers. By 1948 it had ten physicians on its staff and a membership of ten thousand. The trial court found in favor of the Bureau, stating in its opinion that we are in a new era of medical care in which legal considerations must give way to the need of low income patients for adequate medical service. The intermediate court of appeals reversed, holding that the activities of the Bureau constituted illegal corporate practice which should be enjoined. The Supreme Court of California reversed the intermediate court, and by a five to two decision affirmed the judgment of the trial court. The case is not in accord with decisions elsewhere, and will probably not be followed in other States.

Mr. Phillip Cless, Attorney for the Iowa State

Medical Society, discussed the case of *Iowa Hospital Association and others v. The Iowa Board of Medical Examiners and others*, filed in the District Court for Polk County, Iowa, and decided by Judge Moore on November 28, 1955. The trial lasted for many weeks, and covered the whole field of hospital-physician relationships. Judge Moore made extensive findings of fact on the many issues involved, and, after reviewing the cases with respect to corporate practice of medicine in other States, held that the work of pathologists and radiologists is the practice of medicine, that the practice of the Iowa hospitals in employing pathologists and radiologists on a salary basis and furnishing their services to patients and billing the patients for such service in the name of the hospital constituted illegal practice of medicine by such hospitals, and that under the Iowa statutes the practice of medicine is a personal privilege which can be exercised only by licensed individuals who have established competency. The court further stated that in its opinion the furnishing of proper pathology and x-ray services to patients could be worked out at the local level within the law. The case will be appealed to the Supreme Court of Iowa where the conclusions of law of the trial court will be reviewed and its judgment affirmed or reversed. Mr. Cless is confident that the decision of the lower court is sound and will be sustained when the appeal is heard and decided later this year.

Mr. John Lansdale, Jr., Attorney for the Cleveland Academy of Medicine and the American Society of Anesthesiologists, also appeared on the Corporate Practice of Medicine Panel. He discussed a suit filed by the Cleveland physicians to prohibit Hopkins Clinic from practicing medicine through employed physicians. Fifteen hospitals filed briefs on behalf of the defendant, and a bitter legal battle

appeared imminent. At this stage an attempt was made to prepare and make effective an agreement between the Academy of Medicine on behalf of its physician members, and the Cleveland Hospital Council on behalf of its hospital members, resolving the differences between them and setting out a working plan for future operations. The task of finding a satisfactory arrangement was not an easy one, but by mutual concessions and a determination on the part of the leaders of the two groups to end the litigation, such an agreement was worked out and was approved in principal by the two organizations. However, before it was actually signed the hospital administrators objected, and it seems now that the plan may not go into operation. This will mean that the litigation, which has been dormant for many months, will be reopened and pushed to a decision. Mr. Lansdale states that the recent decision in the Iowa case was very helpful in the negotiations leading up to the proposed agreement.

The other discussions were also interesting, informative and helpful, particularly those on Medical Professional Liability, and Legislation, Lobbying and Tax Problems. To even outline the discussions here would take too long. If the transcripts of the discussions are made available by A.M.A., as is now contemplated, then any person interested in a particular subject may be able to obtain the transcript dealing with such subject.

The Conference was well worth while, and like meetings at not too frequent intervals will doubtless be arranged by the legal staff of A.M.A., and should prove of great benefit to attorneys from different areas of the country who are facing similar problems.

ROBERT C. DUVAL, JR.
Attorney.

ANNUAL MEETING
THE MEDICAL SOCIETY OF VIRGINIA
ROANOKE, OCTOBER 14-17, 1956

President's Message

Sound Off . . .

APPROXIMATELY three-fourths of our Society year has passed and this seems a good time to receive comments, constructive criticisms and pet peeves (if any) from our members.

We have a number of problems that need to be solved—some of them immediately, others over a period of time. Here are a few:

1. Should the Society sponsor a group life insurance plan?
2. Should we increase sickness and accident benefits under our present plan with the Loyalty Group?
3. Should there be a special assessment for the AMEF; or, do you approve the present voluntary approach?
4. Do you like the changes made in the Virginia Medical Monthly? How may it be further improved?
5. Should the Society be more active in the affairs of the Blue Cross-Blue Shield programs?
6. Should we consider the erection of a modern and serviceable headquarters building?
7. Should scholarships be set up for worthy students who will agree to practice in a rural community for a stipulated number of years?
8. What is the best way of utilizing any surplus that may accumulate in our treasury?
9. Do you approve of the present fee schedule for our Veterans Medical Care Program?
10. Should the Society be more active in civil defense?
11. Should we sponsor public relations courses in our two medical schools?
12. Do you like "Current Currents"? Should it be continued as an insert in the Monthly or sent to you separately in news form?
13. What suggestions can you offer to improve our annual meeting. Do you believe cruise conventions advisable?

I am sure that other phases of our Society work will occur to you. Your letter may be addressed to me or to Secretary Bob Howard.


President

The Multiple-Authored Medical Article

THE FIRST volume of the Transactions of the American Surgical Association, which appeared in 1883, contained 33 original articles presented by 33 members of this organization. In other words each paper was prepared by a single author and there was no instance of dual authorship. The seventy-first volume of the Transactions of this same association will contain 46 original articles prepared by 116 authors. This means that an average of slightly more than two and one-half authors jointly wrote each article. Only 6 of the 46 papers were prepared by an individual whereas 3 of the articles had 5 authors each.

This situation is not peculiar to the American Surgical Association. Every medical journal shows an increasing number of authors per article. A recent issue of the Journal of the American Medical Association had 9 names affixed to one title. All that was lacking was an asterisk indicating that O'Shaughnessy struck out for Kluszewski in the ninth.

Why has this change come about? Has medicine become so involved and research so complicated that it requires 5 or 6 physicians or research workers to understand and present the information contained in one report? There doubtless are a number of reasons for this change.

Medical research has so many facets and touches so many related sciences that it has become more and more a team effort. This pattern appears to have carried over into other medical writing where research is not involved. Many articles that appear in national journals originate in teaching institutions and are based on work done in large part by junior members of the staff. As many as possible are encouraged to participate in order that they may be stimulated to undertake additional original work on their own. There also is the practical consideration that each participant expends only that fraction of effort that his name represents in terms of the total number of authors and thus he may receive credit for writing several articles for the labor he would expend on one paper if he were the sole author.

Unquestionably there is much to commend the practice but anything that lessens the role of the individual is to be regretted, especially when his field of endeavor is medicine or surgery. The rugged individualist of a half-century or so ago has largely disappeared and nothing highlights this more than the collaboration of half a dozen surgeons in the preparation of an article without their names necessarily being listed alphabetically in the table of contents.

It is impossible to believe that the surgeons listed in the 1883 volume of the Transactions would have participated in such a mass project, so possibly the present method has the additional merit of demonstrating that the young modern doctor is willing to work with his fellow physician in advancing a common cause.

H.J.W.

V.D. Survey In Virginia

"In my opinion there will be no lack of opportunity for the study of neurosyphilis for many years to come. There has been a rather steady decrease in the rate of occurrence of syphilis for several years past; but now the rate of annual decrease has slowed up, and the American Social Hygiene Association is warning of flare-up of the disease, due to juvenile delinquency, lessened appropriations for

the work of control, and lack of trained personnel. Eighteen states have reported epidemics of infectious syphilis, many of the cases in teen-agers. The latest Public Health Service estimate is that in this country 1,921,000 persons have syphilis requiring treatment and 87,000 new infections have occurred in one year."

A.M.A. Archives of Dermatology—May, 1956

"Neurosyphilis in Decline"—A. W. Stillians, M.D.

Attention:

Fellow members of The Medical Society of Virginia—this is a plea for your cooperation in making a State-wide bio-statistical survey of all known cases of venereal diseases in Virginia during the month of July, 1956.

On request of your President, Dr. James W. King, the survey will be conducted by the State Health Department under Commissioner Shanholtz and Dr. W. R. Southward in charge of the Department's Chronic Disease Control Bureau. The object of the survey will be to answer the questions—Is V.D. increasing or decreasing in Virginia—or what is its present status?

Your cooperation is essential.

The V.D. cases may be reported by name or by initials or by a number. The patient's privacy will be respected. All records following the survey will be destroyed.

Please assist your committee on V.D. Control in this survey.

James W. Love, M.D.

Edward P. Cawley, M.D.

Thomas W. Murrell, Jr., M.D.

O. H. McClung, Jr., M.D.

J. H. Irby, M.D.

W. R. Southward, M.D.

Society Proceedings

Norfolk County Medical Society

Dr. Mallory S. Andrews was installed as president of this Society at its meeting on June 5th. Dr. J. Franklin Waddill was named president-elect; Dr. W. C. Salley, vice-president; Dr. John S. Thiemeyer, Jr., recording secretary; Dr. Robert B. Gahagan, treasurer; Dr. Bernard Lidman, parliamentarian; and Dr. M. Kirwan King, local counsellor.

Roanoke Academy of Medicine.

At the May meeting of the Academy, Dr. David S. Garner was elected president-elect. Officers will be installed in September, and Dr. Harry B. Stone, Jr., will succeed to the presidency. Other officers elected are: Drs. Alexander McCausland and George Bourne, vice-presidents, and Dr. Louis Ripley, secretary-treasurer. New executive committeemen are Drs. Ira Hurt, Philip Trout, Charles Young, Jr., and Collins Nofsinger.

Danville-Pittsylvania Academy of Medicine.

The May meeting of this Society was held at the Country Club. Dr. George E. Schreiner, George-

town University Medical Center, Washington, D. C., spoke on the "Application of the Artificial Kidney."

Alexandria Medical Society.

At the regular meeting on May 10th, the following officers were elected: President, Dr. Haskins H. Ferrell, Jr.; president-elect, Dr. Eugene R. Grether; vice-president, Dr. James M. Moss; secretary, Dr. Jean Lockhart; and treasurer, Dr. Robert H. Anderson. Drs. Richard E. Palmer, Christopher J. Murphy, Jr., and F. Preston Titus were elected to the Executive Committee.

The Medical Society of the Valley of Virginia

Met in Winchester on May 17th. Dr. Herbert Lee, Richmond, was the guest speaker, his subject being "Pancreatitis". Also on the program were case reports by Dr. George Murphy, Winchester, and Dr. Leland Bown, Staunton.

Virginia Society of Ophthalmology and Otolaryngology.

The 37th Annual Meeting of this Society was a

Convention Cruise to Havana and Nassau on the Queen of Bermuda, sailing from Norfolk on May 26th. Dr. Neil Callahan, Norfolk, was general chairman of the Cruise.

Guest speakers were Dr. R. Cannon Eley, Assistant Clinical Professor of Pediatrics, Harvard University, Boston; Dr. Harold W. Brown, Clinical Professor of Ophthalmology, New York University Hospital; Dr. James W. McLaurin, Professor, Department of Otolaryngology, Tulane University, New Orleans; Dr. F. Johnson Putney, Associate Professor of Bronchology and Laryngology, Jefferson University, Philadelphia; Dr. Alston Callahan, President of the Eye Foundation, Birmingham; Dr. Robert L. Goodale, Assistant Professor of Laryngology, Harvard University, Boston; and Mr. Iram H. Brewster, Insurance Executive, Pittsburgh.

Dr. Benjamin Sheppard, Richmond, succeeded Dr. Howard L. Mitchell, Lexington, to the presidency, and the following officers were elected: Dr. Emanuel Wallerstein, Richmond, president-elect; Dr. Calvin Burton, Roanoke, vice-president; and Dr. Maynard P. Smith, Richmond, re-elected secretary-treasurer. Drs. Peter N. Pastore, Richmond; G. S. FitzHugh, Charlottesville; H. L. Mitchell, Lexington; W. C. Anderson, Winchester; Orvin C. Jones, Newport News; R. R. Owens, Jr., Roanoke, and R. O. Smith, Pulaski, were elected to the Executive Council.

There were 115 people registered for the Cruise. The following Virginia doctors and their wives were

in attendance: Dr. and Mrs. Walter P. Adams, Norfolk; Dr. and Mrs. W. Clayton Anderson, Winchester; Dr. and Mrs. George S. Bourne, Roanoke; Dr. and Mrs. C. T. Burton, Roanoke; Dr. and Mrs. Edwin W. Burton, Charlottesville; Dr. and Mrs. Neil Callahan, Norfolk; Dr. and Mrs. Edgar Childrey, Jr., Richmond; Dr. and Mrs. Frank D. Daniel, Charlottesville; Dr. and Mrs. Meade Edmunds, Petersburg; Dr. and Mrs. Joseph J. Eller, Marion; Dr. and Mrs. G. S. Fitz-Hugh, Charlottesville; Dr. and Mrs. M. K. Humphries, Jr., Charlottesville; Dr. and Mrs. Orvin C. Jones, Newport News; Dr. and Mrs. Alter Laibstain, Norfolk; Dr. and Mrs. Parker H. Lee, Jr., Lynchburg; Dr. and Mrs. F. H. McGovern, Danville; Dr. and Mrs. Howard L. Mitchell, Lexington; Dr. and Mrs. J. Warren Montague, Richmond; Dr. and Mrs. Richard S. Owens, Jr., Roanoke; Dr. and Mrs. Harry Pariser, Norfolk; Dr. E. W. Perkins, Richmond, Dr. George G. Rhudy, Roanoke; Dr. and Mrs. Emmett V. Richardson, Marion; Dr. and Mrs. John G. Sellers, Norfolk; Dr. and Mrs. L. Benjamin Sheppard, Richmond; Dr. and Mrs. Maynard P. Smith, Richmond; Dr. Richard O. Smith, Pulaski; Dr. and Mrs. Harry B. Stone, Jr., and Dr. and Mrs. Harry B. Stone, Sr., Roanoke.

Richmond Pediatric Society.

At the meeting of this Society in May, Dr. Jay M. Arena, Associate Professor of Pediatrics of Duke University, spoke on Accidental Poisoning in Children.

News

Calendar of Coming Events

FIRST INTER-AMERICAN CONFERENCE ON OCCUPATIONAL MEDICINE AND TOXICOLOGY
—University of Miami, Miami, Florida—September 3-7.

THE MEDICAL SOCIETY OF VIRGINIA—Hotel Roanoke, Roanoke, Virginia—October 14-17.

SOUTHERN MEDICAL ASSOCIATION GOLDEN ANNIVERSARY MEETING—Washington, D.C.—November 12-15.

AMERICAN PUBLIC HEALTH ASSOCIATION—84th Annual Meeting—Convention Hall, Atlantic City, New Jersey—November 12-16.

New Members.

The following new members have been admitted into The Medical Society of Virginia, since the list

published in the June issue of the Monthly:

Lawrenceville Stanley Cowling, M.D., Newport News

Donald Frank Fletcher, Jr., M.D., Horsey
 Robert L. Guillaudeu, M.D., Richmond
 William Elgin Harmon, M.D., Staunton
 Boyd Withers Hayes, Jr., M.D., Richmond
 Lewis Edward Jones, M.D., Hampton
 Afif A. Khuri, M.D., Charlottesville
 Emerson Lynn Kirby, M.D., Richlands
 Louis August Leone, M.D., Richmond
 Stanley P. Mayers, Jr., M.D., Fieldale
 Lercy Sutter McDaniel, M.D., Bon Air
 George Edward Mowry, M.D., Wicomico
 William F. Schmidt, M.D., Norton
 Richard Coffman Shrum, M.D., Charlottesville
 George Robert Smith, Jr., M.D., Shawsville.

Commencement Exercises.

Medical College of Virginia

The commencement exercises of the one hundred nineteenth session of the Medical College of Virginia, Richmond, were held on May 29th. The commencement address was given by Dr. William Thomas Sanger, President of the College, his subject being "Three Reminders". Honorary degrees were presented to Dr. Walter B. Martin, Norfolk, and Dr. William R. Laird, Lewisburg, W. Va. Dr. Martin received the Doctor of Science degree and Dr. Laird Doctor of Literature.

Degrees were awarded to 98 in the School of Medicine, 47 in Dentistry, 48 in Pharmacy, 26 in Nursing, 23 in Physical Therapy, 9 in Hospital Administration, and 30 in Medical Technology.

The following are graduates of the Medical School with hospital appointments:

MEDICAL COLLEGE OF VIRGINIA HOSPITALS, Richmond—Drs. Robert Richardson Bowen, Lynchburg; Barbara Hoskin DeHaven, Norfolk; Echols Alcott Hansbarger, Jr., Charleston, W. Va.; James Richard Sease, Richmond; Clifford Sperow, Martinsburg, W. Va.; Paul Clayton Taylor, Burkeville; and Lawrence Coleman Zacharias, Richmond.

STUART CIRCLE HOSPITAL, Richmond—Drs. Tony Michael Constant, Suffolk; David Scott Humphries, Beckley, W. Va.; Albert William Moser, Montvale, John Byron Parker, Richmond; James Woodford Proffitt, Richmond; and Bernard Francis Wittkamp, Jr., Richmond.

JOHNSTON-WILLIS HOSPITAL, Richmond—Drs. Keith Castleton Edmunds, Roanoke; John Russell Good, Richmond; William Rutherford Mauck, Richmond; Charles Hilary Moseley, Jr., South Hill; Fitzhugh Xenophon Mullins, Jr., Highland Springs; Eugene Davis Nolley, Nokesville; Benjamin Rivers Ogburn, Lawrenceville; Frederick Henry Savage,

Richmond; David Jessop Skewes, Pocahontas; James Edmond Temple, Lawrenceville; and Edward James Wiley, Jr., Richmond.

DEPAUL HOSPITAL, Norfolk—Drs. Gerald Wesley Atkinson, Glade Spring; Leigh Oliver Atkinson, Roanoke; William Bauer, Omar, W. Va.; Robert James Buchanan, Portsmouth; Clarence Kinsey Glover, Jr., Falls Church; Panos George Gregoriou, Karavas, Cyprus; and Edward Sidney Hunter, Jr., Richmond.

NORFOLK GENERAL HOSPITAL, Norfolk—Drs. Gilbert Palmer Blankinship, Lynchburg; Andrew Maurice Fekete, Norfolk; Emma Anne Smith Goldston, Norfolk; and Harriett Evelyn Wood, Roanoke.

MEMORIAL HOSPITAL, Danville—Drs. William Bruhwood Brown, Gloucester; Lester Langdon Gillespie, Coeburn; Donald Thomas Hensley, Midlothian; Louis John Read, Danville; Kenneth Brown Sizer, Buena Vista; and Rheudolph James Wells, Gretna.

UNITED STATES NAVAL HOSPITAL, Portsmouth—Drs. Raymond Douglas Dyer, Jr., Radford; Hugh Erskine Fraser, Jr., Richmond; and Lucius Ashton Harrison, Jr., Salem.

LEWIS-GALE HOSPITAL, Roanoke—Drs. William Otey McCabe, Jr., Thaxton; Sterling Neblett Ransone, Richmond; Derek William Williams, Richmond; and John William Yost, Tazewell.

UNIVERSITY OF VIRGINIA HOSPITAL, Charlottesville—Dr. John Randolph Smith, Fieldale.

MEMORIAL HOSPITAL, Charleston, W. Va.—Drs. Richard James Browning, Spencer, W. Va.; William Hammond Canada, Huntington, W. Va.; Carl Eugene Crimm, Clarksburg, W. Va.; William Alva Deardorff, S. Charleston, W. Va.; Frank Edward Dunlap, St. Albans, W. Va.; Donald Stewart Groves, Summersville, W. Va.; William J. Lawson, Monongah, W. Va.; Laurence Ketler Musselman, Charleston, W. Va.; and Larry Click Smith, Huntington, W. Va.

OHIO VALLEY GENERAL HOSPITAL, Wheeling, W. Va.—Drs. John Joseph Halki, Morgantown, W. Va.; Chester Doan Harman, Onego, W. Va.; Marion Ellis Ingram, Wilkins, W. Va.; and James Caldwell Sams, Huntington, W. Va.

MERCY HOSPITAL, Springfield, Ohio—Drs. Charles Chandler Abby, Waverly; George Lee Fifer, Harrisonburg; Gary Lemasters Ripley, Huntington, W. Va.; and Robert Sullins Smith, Arlington.

MOUNT CARMEL HOSPITAL, Columbus, Ohio—Dr. Charles Richard Blake, St. Mary's W. Va.

BELLEVUE HOSPITAL, New York, N. Y.—Dr. Thomas Herbert Bain, Crozet.

KINGS COUNTY HOSPITAL, Brooklyn, N. Y.—Drs. Roderick Anthony Comunale, Rahway, N. J.; and Anthony Abraham Deep, Jr., Richmond.

UNION MEMORIAL HOSPITAL, Baltimore, Md.—Drs. William Paul Bennett, Algoma, W. Va.; and Walter Moffett Zirkle, Jr., Harrisonburg.

JOHNS HOPKINS HOSPITAL, Baltimore, Md.—Drs. Richard Page Hudson, Jr., Richmond; and Dorothy Urban Wright, Arlington.

UNITED STATES NAVAL HOSPITAL, Bethesda, Md.—Dr. Howard Boykin Wilkins, Portsmouth.

PHILADELPHIA GENERAL HOSPITAL, Philadelphia, Pa.—Drs. Charles Richard Daniel, Beckley, W. Va.; Donald Sherman Howell, Suffolk; and Russell Lee Hughes, Canoke.

JEFFERSON MEDICAL COLLEGE HOSPITAL, Philadelphia, Pa.—Dr. Marvin Allen Krane, Richmond.

JACKSON MEMORIAL HOSPITAL, Miami, Fla.—Dr. Francis Gregory Burns, Jr., Triangle.

GRADY MEMORIAL HOSPITAL, Atlanta, Ga.—Drs. Epes Freeman, Blackstone; John Jay Krueger, Jacksonville, Fla.; and Robert John Robertson, Jr., Norfolk.

PIEDMONT HOSPITAL, Atlanta, Ga.—Dr. Nancy Jane Wing, Waterville, Me.

GARFIELD MEMORIAL HOSPITAL, Washington, D. C.—Dr. Elkanah Burns Gray, Lebanon.

THE QUEEN'S HOSPITAL, Honolulu, Hawaii—Dr. William Paul Grigsby, Dublin.

ST. JOSEPH'S HOSPITAL, Phoenix, Ariz.—Dr. William Hale Harper, Elkins, W. Va.

DUKE HOSPITAL, Durham, N. C.—Dr. William Carl Kappes, Jr., Huntington, W. Va.

WATTS HOSPITAL, Durham, N. C.—Drs. Doris Lee Arnold Thurman, Roanoke; and William Allen Thurman, Jr., Vinton.

WILLIAM BEAUMONT ARMY HOSPITAL, El Paso, Tex.—Dr. Daniel Lee Kendrick, Richmond.

SANTA BARBARA COTTAGE HOSPITAL, Santa Barbara, Calif.—Drs. Boyd Hickman May, Jr., Elkins, W. Va.; and Robert Lyle Miles, Wheeling, W. Va.

MASSACHUSETTS GENERAL HOSPITAL, Boston, Mass.—Dr. Robert Keith Osborne, Bloomingdale, Ind.

VIRGINIA MASON HOSPITAL, Seattle, Wash.—Dr. Gerald William Roller, Timberville.

MADIGAN ARMY HOSPITAL, Tacoma, Wash.—Dr. Raymond Dewey Wallace, Jr., South Norfolk.

Drs. Donald Keith Auvil, Parsons, W. Va., and Rosemary Foulger Schellenberg, Wilmington, Del., are also members of the graduating class.

University of Virginia

The Commencement Exercises of the School of Medicine, University of Virginia, were held on June 11th. The following are members of the graduating class with hospital appointments:

UNIVERSITY HOSPITAL, Charlottesville — Drs. Harry S. Abram, Dane R. Boggs, Bennett M. Derby, Lloyd T. Griffith, Ralph W. Hess, Fitz G. Hiestand, Jr., Robert H. Jennings, Bennett W. LaPrade, James I. Masloff, Thomas A. Sydnor, George C. Thrasher, Jr., Reinold E. Weise, and Elisha W. Winfrey, III.

NORFOLK GENERAL HOSPITAL, Norfolk—Drs. George N. Cayros and Robert C. Raynor.

TRIPLER ARMY HOSPITAL, Honolulu, Hawaii—Dr. Elmore J. Becker.

BAYLOR UNIVERSITY HOSPITAL, Dallas, Tex.—Dr. Jack K. Bentley.

CINCINNATI GENERAL HOSPITAL, Cincinnati, Ohio—Dr. Peter Bercaw.

GORGAS HOSPITAL, Panama, C. Z.—Dr. Irving D. Hornstein.

BROOKE ARMY HOSPITAL, San Antonio, Tex.—Dr. John V. Bowyer.

MEMORIAL HOSPITAL, Chapel Hill, N. C.—Dr. Andrew G. Briggs, III.

JOHNS HOPKINS HOSPITAL, Baltimore, Md.—Drs. Charles R. Chamberlain and Victor E. Cornett.

CHARITY HOSPITAL, New Orleans, La.—Dr. Joel A. Clark, Jr.

UNION MEMORIAL HOSPITAL, Baltimore, Md.—Dr. Fred N. Cole.

WILLIAM BEAUMONT ARMY HOSPITAL, El Paso, Tex.—Dr. James E. Comer, Jr.

ST. LUKE'S HOSPITAL, New York, N. Y.—Dr. Richard S. Crampton.

UNIVERSITY & HILLMAN CLINIC, Birmingham, Ala.—Dr. William Dakos.

PHILADELPHIA GENERAL HOSPITAL, Philadelphia, Pa.—Dr. William N. Evans.

NEW YORK HOSPITAL, New York, N. Y.—Dr. Thomas M. Fulcher.

UNIVERSITY HOSPITAL, Iowa City, Ia.—Drs. Frederick Gillespie and Thomas L. Gorman.

NEW ENGLAND CENTER, Boston, Mass.—Dr. Carl M. Goldsmith.

UNIVERSITY OF CHICAGO CLINICS, Chicago, Ill.—Drs. Wallace M. Graves, Jr., and Sigmund C. Stein.

UNIVERSITY HOSPITALS, Cleveland, Ohio—Drs. Jack M. Gwaltney, Jr., and Willcos Ruffin, Jr.

FITZSIMONS ARMY HOSPITAL, Denver, Col.—Dr. John S. Hansel, Jr.

BARNES HOSPITAL, St. Louis, Mo.—Dr. Guy M. Harbert, Jr.

UNIVERSITY OF ARKANSAS HOSPITAL, Little Rock, Ark.—Dr. Frank M. Johnson.

ST. LUKE'S HOSPITAL, Denver, Col.—Dr. Cooper D. Kunkel, III.

PRESBYTERIAN HOSPITAL, New York, N. Y.—Drs. Leavie E. Lee, Jr., and Robert S. Perry.

ALBERT EINSTEIN HOSPITAL, Philadelphia, Pa.—Dr. Arne S. Levinson.

UNIVERSITY OF KANSAS MEDICAL CENTER, Kansas City, Kan.—Drs. Martin P. Levinson and Frank C. McCue, III.

GRADY MEMORIAL HOSPITAL, Atlanta, Ga.—Drs. Alfred S. Llorens and Thomas N. Rucker.

UNIVERSITY OF CALIFORNIA HOSPITAL, San Francisco, Cal.—Dr. Frank S. MacDonell.

U. S. NAVAL HOSPITAL, Corona, Cal.—Dr. William A. Manson, Jr.

STRONG MEMORIAL HOSPITAL, Rochester, N. Y.—Drs. William M. Massie and Edwin A. Sumpter.

SYRACUSE MEDICAL CENTER, Syracuse, N. Y.—Dr. Joseph R. Milligan.

MEMORIAL HOSPITAL, Chapel Hill, N. C.—Dr. Alfon B. Mosca.

DUKE HOSPITAL, Durham, N. C.—Dr. Robert A. Nebesar.

JACKSON MEMORIAL HOSPITAL, Miami, Fla.—Dr. Stanley S. Needell.

HARTFORD HOSPITAL, Hartford, Conn.—Dr. Charles H. Peterson.

VIRGINIA MASON CLINIC, Seattle, Wash.—Dr. William L. Sibley, III.

HOSPITAL OF UNIVERSITY OF PENNSYLVANIA, Philadelphia, Pa.—Dr. Henry H. Sprague.

WATTS HOSPITAL, Durham, N. C.—Drs. William J. Thomas and Julian M. Warren.

EMORY UNIVERSITY HOSPITAL, Emory, Ga.—Dr. Edwin L. Wildner, Jr.

Dr. Collins Honored.

A testimonial dinner was recently given for Dr. Joseph D. Collins, dean of Portsmouth surgeons, by the members of the medical staff of King's Daughters' Hospital and its board of trustees and directors. This was in recognition of fifty-one years of service in the practice of medicine. A portrait of Dr. Collins was unveiled during the evening.

The Ford Foundation Grants.

The second group of voluntary, nonprofit hospitals throughout the United States, Alaska, Hawaii and Puerto Rico, have received their first payments in the Ford Foundation's \$200 million program. Some

1,000 hospitals received checks totalling \$31,072,-150.00 in this second mailing which was made the latter part of May.

Upon completion of this mailing, more than 2,000 private hospitals have received grant payment checks totalling \$68,820,950. By the end of July all of the approximately 3,500 participating hospitals will have received payments from the Foundation.

Virginia hospitals on this second group are: Martha Jefferson Hospital and Sanitarium, Charlottesville; The Memorial Hospital, Danville; Raiford Memorial Hospital, Franklin; Mary Washington Hospital Association, Fredericksburg; Hot Springs Valley Nursing Association operating Community House, Hot Springs; The Community Hospital, Martinsville; Mary Immaculate Hospital and Whittaker Memorial Hospital Association, Newport News; Hospital of St. Vincent of Paul and Norfolk Community Hospital Association, Norfolk; Giles Memorial Hospital, Pearisburg; The King's Daughters' Hospital, Portsmouth; The Sheltering Arms Hospital, Richmond; Burrell Memorial Hospital Association, Roanoke; and Wytheville Hospital Corporation, Wytheville.

Dr. Herbert C. Lee,

Richmond, has been elected president of the Virginia Orchid Society. This Society is composed of some fifty amateur orchid growers.

Dr. William R. Tyson,

Norfolk, has received an award for his "distinguished services". For fifteen years he has accompanied school children to Washington in the Safety Patrol's annual trips. The presentation of a paperweight was made at the May meeting of the Norfolk Sports Club.

Dr. Charles W. Whitmore,

Lynchburg, has been appointed medical director for the newly organized First Colony Life Insurance Company.

Dr. R. Finley Gayle,

Richmond, will be one of the speakers at the Annual Medical Symposium of the New Hanover County Medical Society to be held at Wrightsville Beach, N. C., on August 3rd.

Dr. Charles J. Frankel,

Charlottesville, addressed the Charlottesville-Albemarle Bar Association at its meeting in June. His subject was the increasing importance of the relationship between law and medicine.

Dr. G. Watson James, III,

Richmond, has returned from a five-week stay

in Europe during which he visited medical centers. He also presented a paper before the International Congress of Physicians at Hamburg.

Physicians' Liability Insurance Committee Meets.

The Committee on Physicians' Liability Insurance of The Medical Society of Virginia met in Roanoke

showing why the patients see doctors and what types of treatment they receive.

Nearly nine hundred doctors, located in twenty-seven statistically-selected representative areas, have agreed to participate in this important project. More than thirty Richmond area doctors are participating and additional panel members are proceeding rapid-



Dr. James L. Chitwood, Pulaski; Dr. Alexander McCausland, Roanoke; Mr. Robert Mairs, Saint Paul-Mercury Indemnity Company, Richmond; Mr. Don Hawkins, Saint Paul-Mercury Indemnity Company, St. Paul, Minnesota; Dr. Louis P. Bailey, Nathalie; Dr. James P. King, Radford; Dr. Frank A. Farmer, Roanoke.

on May 9 to review the Society sponsored program which has been in effect since January. Meeting with the committee were representatives of Saint Paul-Mercury Indemnity Company who presented an encouraging report on the program's progress for the first 4 months.

According to the agreement between the Society and the Saint Paul Company "A semi-annual, or at least an annual report of losses, reserves and expenses will be made available to the Society's executive office. . . ."

Dr. Kinloch Nelson,

Richmond, was on the program of the Mountain-top Assembly, held in Waynesville, N. C., June 21-23. He spoke on Hyperthyroidism and also on Cardiac Arrhythmias.

Richmond Doctors in Nationwide Study.

The National Disease and Therapeutic Index, a Medical statistical research program, has completed its first three months of operation. Designed to provide information for continuous study of the nature, scope and frequency of occurrence of non-fatal disease, injury, and other conditions as seen by the doctor in private practice in the United States, the program involves the compilation of statistical data

ly. There are sixteen general practitioners, five internists, six pediatricians, one obstetrician-gynecologist, one urologist and one otolaryngologist.

Dr. Payne Appointed Superintendent.

Dr. Kenneth N. Payne will become superintendent of Pine Camp Hospital, Richmond, on July 1st. He was formerly in charge of the acute and contagious disease ward at the army hospital at Ft. Eustis.

A radical change in the way medical care is provided patients is being put into effect at Pine Camp. Medical care at the hospital will be the joint responsibility of a resident staff of three doctors, headed by Dr. Payne, and a group of consulting specialists who practice in Richmond and teach at the Medical College of Virginia. The city program is to change Pine Camp from a hospital predominantly concerned with treating tuberculous patients to an emphasis on treatment of patients with long-term diseases. Ultimate plans are to use the hospital as a training ground for students at the Medical College of Virginia in care of long-term illnesses.

Pan-Pacific Surgical Association.

The Seventh Congress of the Pan-Pacific Surgical Association will be held in Honolulu, Hawaii, November 14-22, 1957. All members of the profession are invited to attend and are urged to make arrange-

ments as soon as possible if they wish to be assured of adequate facilities.

Further information and brochures may be obtained by writing to Dr. F. J. Pinkerton, Director, General of the Pan-Pacific Surgical Association, Room 230, Young Building, Honolulu, Hawaii.

Course in Postgraduate Gastroenterology.

The American College of Gastroenterology has announced that its annual course in postgraduate gastroenterology will be given at The Roosevelt in New York City on October 18-20, 1956. The subject matter to be covered, from a medical as well as surgical viewpoint, will be essentially the ad-

vances in diagnosis and treatment of gastrointestinal diseases and a comprehensive discussion of diseases of the mouth, esophagus, stomach, pancreas, spleen, liver and gallbladder, colon and rectum, with special studies of radiology and gastroscopy.

For further information, write to the College, Department P.G., 33 West 60th Street, New York 23.

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Obituaries

Dr. William Henry Parker,

Well-known physician of Richmond, died June 13th, having been in ill health for several years. He was eighty-two years of age and graduated from the former University College of Medicine, Richmond, in 1895. Dr. Parker practiced obstetrics for fifty-seven years and delivered 2800 babies during that time. He was best known to the city at large as one who contributed much to the encouragement and development of sports. Dr. Parker was "the father of amateur athletics in Virginia" and was named Virginia Commissioner for the Amateur Athletic Union in 1923. He served as president of the Richmond Baseball team and one of Richmond's athletic fields was named in his honor.

Dr. Parker was a member and chairman of the City Electoral Board and had been medical director of the Mutual Life Insurance Company of Virginia since 1925. He was a Shriner and a Rotarian. Dr. Parker was a Life Member of The Medical Society of Virginia, having joined in 1899.

His wife and three daughter survive him.

Dr. Roger Harold DuBose.

The death of Dr. Roger Harold DuBose on April 2, 1956, marked the passing of one of our most prominent physicians, a pioneer in Pediatrics in this area. He was born in Darlington, South Carolina, October 31, 1891.

Dr. DuBose established practice in Roanoke in May 1922, and became a member of the Second Presbyterian Church.

After completing his medical education at the

Medical College of Virginia he entered the Navy leaving with the rank of Lieutenant. He practiced in Norfolk for a short time before going to be with Dr. Charles Gilmore Kerly in New York for his practical training in Pediatrics. He lived a life in his community as a physician true to his calling, one who was willing and particularly capable of meeting every requirement of the child.

Dr. DuBose had been a member of The Medical Society of Virginia since 1923.

He had an unusual capacity for work and one marvelled at his ability to make countless house calls day and night, yet most of all he enjoyed life. Feeding the undernourished child and growing flowers and vegetables in his own garden, most of which he gave to his friends, were among his greatest pleasures. Sharing and playing his practical jokes on both family and clientele, his record stands as an exemplary one of devotion to the ideals of furnishing the best possible medical service to his patients regardless of their economic level in the community. He regarded the affection and respect of his patients as his most valuable possession.

BE IT RESOLVED that The Roanoke Academy of Medicine record in its minutes our sorrow in the passing of Dr. DuBose. That a copy of these resolutions be entered in the minutes of the Society, a copy be forwarded to the family, and a copy sent to The Medical Society of Virginia.

RUTH BARNHART

HUGH H. TROUT, JR.

A. M. GROSECLOSE, *Chairman*

Dr. Robert Hull Courtney,

Richmond ophthalmologist, died May 23rd, having suffered a fall early in May. He was sixty-three years of age and a graduate in medicine from the Medical College of Virginia in 1919. Dr. Courtney was associate professor of physiology and pharmacology at the College before he specialized in eye diseases. He then became an assistant professor of ophthalmology and was made ophthalmologist in chief in 1938. Dr. Courtney was a member of several national medical organizations and had been a member of The Medical Society of Virginia for twenty-nine years. His wife and two children survive him.

Dr. Davis.

Dr. Robert Allen Davis was born in York County, in 1886. Following graduation from Newport News High School, he attended the University of Virginia Medical School, from which he graduated in 1909. He then became a member of the Medical Staff of the Petersburg State Hospital and Eastern State Hospital at Williamsburg. He later was a resident member of the staff of the Chesapeake and Ohio Hospital at Clifton Forge. He then returned to Newport News to enter general practice and later took training in Roentgenology at Harvard Medical School in Boston.

During World War I he served as a Captain in the Medical Corps of the U. S. Army, sixteen months of which time was spent in England and France.

Following his discharge from the Army, he returned to Newport News, to assume charge of the x-ray department at the Elizabeth Buxton Hospital. He continued the practice of his specialty until his sudden and untimely death from coronary thrombosis on April 29, 1956.

Although his primary interest in medicine was in the field of roentgenology, he, nevertheless, was always in close personal contact with his patients and associates. This was evidenced by the fact that he continued engaging in the practice of general medicine for several years following his return to this community after World War I.

He was a member of the Phi Chi Medical Fraternity,

Warwick-Newport News Medical Society, The Medical Society of Virginia, American Medical Association, Roentgenologic Society of North America and Virginia Radiological Society.

He was past President of the Seaboard Medical Association and the Warwick County Medical Society.

Dr. Davis was one of the pioneers in Roentgenology in the state. He maintained an unflagging interest and enthusiasm in his chosen specialty.

Dr. Davis had apparently been in excellent health, so that his sudden death came as a great shock to his friends and associates; as did the realization of the great loss suffered by this community.

THEREFORE BE IT RESOLVED that in the death of Dr. Davis this Society has lost a highly respected and much beloved member.

AND BE IT FURTHER RESOLVED that a copy of these resolutions be included in the minutes of the Warwick-Newport News Medical Society and also a copy sent to the bereaved family and one to the Virginia Medical Monthly.

A. A. CREECY

R. PEIRCE, JR.

Dr. Dunkley.

Dr. James H. Dunkley, one of the oldest physicians in the City of Roanoke, died February 6, 1956, after a long illness. He was eighty-six years of age and a graduate of the College of Physicians and Surgeons in Baltimore in 1892.

He practiced in Saltville, Virginia, until he moved to Roanoke in 1912. He was Medical Director of the Shenandoah Life Insurance Company from the date of its organization for twenty-five years, retiring fifteen years ago.

He was a life member of The Medical Society of Virginia having joined in 1901.

THEREFORE, BE IT RESOLVED that the Roanoke Academy of Medicine record in its minutes our sorrow in Dr. Dunkley's passing, that a copy of these resolutions be entered in the minutes of the Society, a copy be forwarded to the family, and a copy be sent to The Medical Society of Virginia.

CHARLES H. PETERSON

IRA HURT

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1. Bowes, A. deP.: Dietotherapy—Nutrition of Children During Their School Years, *Am. J. Clin. Nutrition* 3: 254 (May-June) 1955.
2. Kelly, H. T.: Impact of Modern Nutrition on Twentieth Century Morbidity, *Pennsylvania M. J.* 58: 481 (May) 1955.
3. Cantarow, A., and Trumper, M.: *Clinical Biochemistry*, ed. 5, Philadelphia, W. B. Saunders Company, 1955, pp. 139, 140.

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*National Research Council's recommended daily dietary allowances (1953):
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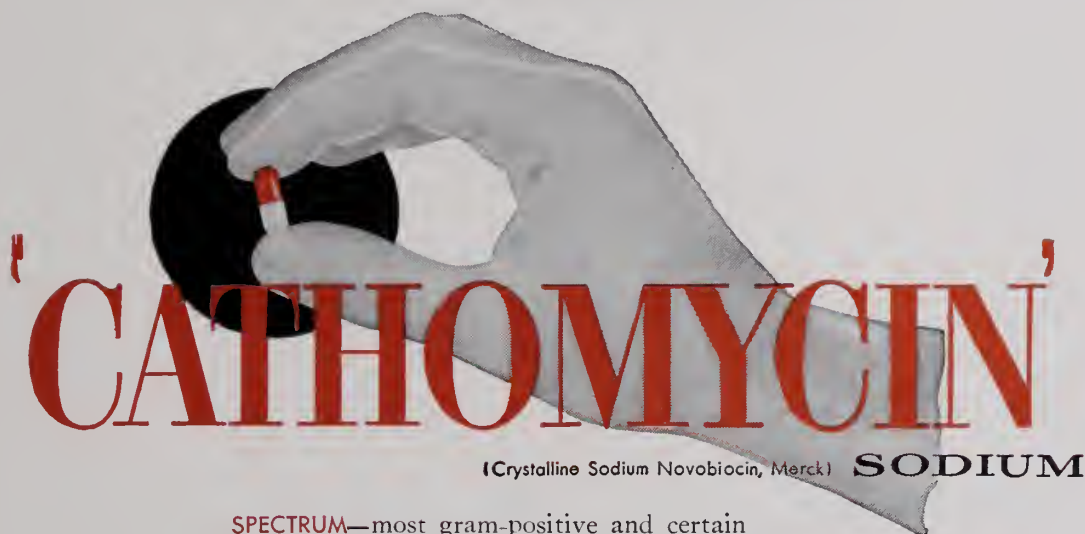
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1105 West Franklin Street

Richmond 20, Virginia

Annual Subscription—\$2.00

Single Copies—25¢

TABLE OF CONTENTS

GUEST EDITORIAL

The Caffeine Gastric Analysis—

Robert E. Mitchell, Jr., M.D.----- 325

SCIENTIFIC ARTICLES

Abnormal Sensitivity of the Skin to Sunlight—

W. Harvey Cabaniss, Jr., M.D.----- 327

Herpes Simplex: A Dermatologic Enigma—E. Randolph

Trice, M.D., and Richard W. Fowlkes, M.D.----- 332

The Existing Danger of Bromide Intoxication—

Morgan E. Scott, M.D., and James M. Brown, M.D.--- 337

Mitral Valvulotomy During Pregnancy—

T. Stacy Lloyd, Jr., M.D., and James G. Willis, M.D.--- 340

Listeria-Monocytogenes Meningitis—George J. Carroll,

M.D., Maurice M. Bray, M.D., and Ralph Hare----- 343

Cervical Thymoma—C. I. Sease, M.D.----- 345

Inferior Vena Cava Ligation—John M. Stoneburner, M.D. 347

MENTAL HEALTH

Interaction Between Patients and Employees----- 353

PUBLIC HEALTH

Typhoid Fever ----- 353

Mortality Report ----- 351

THE MEDICAL SOCIETY OF VIRGINIA

National Medical Civil Defense Conference----- 354

MISCELLANEOUS

Oral Narcotic Prescription Amendment----- 356

The Jamestown Festival----- 356

BOOK ANNOUNCEMENTS ----- 358

PRESIDENT'S MESSAGE

A New Society Headquarters Building?----- 360

EDITORIALS

Your Virginia Medical Monthly----- 362

Cardiac Arrest ----- 362

SOCIETY PROCEEDINGS ----- 364

NEWS ----- 365

OBITUARIES ----- 368

SHORT SUBJECTS—Let's Reminisce, 331; "Take-It-Easy"

Tennis, 336; Widen Your Civic Interests, 342; Parke-Davis

Begins Publication, 344; New Tranquilizing Drugs, 355; Let's

Reminisce, 359

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INDEX TO ADVERTISERS—Page 56

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Guest Editorial

The Caffeine Gastric Analysis

WHILE IT IS true that the diagnosis of duodenal ulcer may usually be established or discarded by complete histories and physical examinations, plus careful gastrointestinal roentgenographic studies, there remains a fairly large group in whom further diagnostic studies may prove helpful. It is this group which can most likely be benefited by studying the basal and caffeine stimulated gastric contents by means of a single aspiration caffeine gastric analysis, as well as the Ewald test meal fractional gastric analysis.

The time honored fractional gastric analysis, as described by Rehfuess in 1914, is productive of some information, i.e. the degree of digestion of food as indicated by the appearance and odor of the gastric contents, evidence of stasis or retention, the presence or absence of free hydrochloric acid, the amount and rate of secretion of gastric juice, and the presence of blood, bile, pus, excessive mucus, parasites, bacteria, crystals, epithelial cells, or tissue. This affords a somewhat crude method for measuring the work capacity of the stomach and information concerning the stomach's secretory capacity. To establish a diagnosis of true achylia gastrica histamine is the drug of choice, although the Ewald test meal of bread and water seems preferable to alcohol stimulation when judging the stomach's emptying and chymification functions. The Ewald test meal still remains the method of choice in conjunction with the fractional gastric analysis in many gastrointestinal clinics, however objections are raised to it. Briefly, these are the dilution of the gastric juice by test meals, and a buffering effect which may obscure the true pH value of the gastric contents. Also, it may yield a mixture of juice with a variable amount of foreign matter for analysis. Finally, the fact that the ordinary (Ewald) test meal is perhaps unable to bring to bear the full potentialities of the secretory mechanisms would lend credence to those who hold only to the basal gastric analysis, wherein gastric juice is aspirated over successive ten minute periods without any special meal or stimulus. They would preserve the histamine gastric test for studying the maximal stimulus for secretion.

Granting that the above methods will prove useful adjuncts in ferreting out duodenal ulcer cases, there still remain those with whom the findings are equivocal at best. To this group, the study of basal and caffeine-induced gastric secretion may offer aid.

Caffeine solutions in proved cases of duodenal and gastric ulcers will show more prolonged response (with regard to the gastric secretory response) than will control subjects, and, interestingly enough, the gastric ulcer patients show a lower peak response and a greater tendency to return to the control level at the end of two hours, in the fractional gastric aspiration testing, than do the duodenal ulcer patients. The majority of patients with active peptic ulcer respond to the caffeine test-meal by a prolonged and sustained stimulation of the total output of free hydrochloric acid. This hypersecretion on the part of these ulcer patients may be explained in part on the basis of a synergistic or anamnestic relationship between two or more mechanisms of gastric secretion, as between histamine or acetylcholine and caffeine. We know that in normal control subjects, the concomitant ingestion of histamine and caffeine gives a secretory curve as is seen in peptic ulcer patients on caffeine ingestion alone; hence, an abnormal release of histamine in duodenal ulcer cases seems to be shown. Another factor to be considered is that perhaps the sustained response to caffeine is the conditioning influence of the vagus nerve. Should it be desired to test for the integrity of vagal pathways or the response of non-parietal constituents (as pepsin or mucoprotein), the insulin hypoglycemia test may be performed.

Although the fractional caffeine gastric analysis is possibly more informative, most cases can be successfully evaluated by a single aspiration caffeine test which may be satisfactorily performed in the office. To do this test, the patient is instructed to report to the office in the morning in the fasting state. The contents of an ampoule containing 0.5 gram caffeine sodium benzoate is mixed with 200 cc. tap water and ingested by the subject. Ninety minutes later, a Levin tube is passed and the gastric contents are withdrawn. Using Toepfer's reagent and phenolphthalein as indicators, titration is done with 0.10 normal sodium hydroxide and results are usually expressed in meq./l., which is numerically similar to "clinical units". Free acid concentrations above 25 meq./l. (clinical units) should point toward duodenal ulcer patients, assuming the test has been properly performed.

An interesting side observation is that among the few patients initially considered to show "false positive" reactions to the caffeine gastric analysis, most have since been found to be due to an ulcer tendency, wherein the individual went on to develop peptic ulcer at a later date, or actually had an undiagnosed or atypical ulcer at the time of examination.

Whether this caffeine gastric analysis, as devised by Roth, Atkinson, and Ivy, will prove as useful as it would seem at this writing makes for interesting speculation. It is to be emphasized that this procedure should not replace the above described "standard" tests for gastric function, etc., but should be an adjunctive procedure complementing them. At any rate, we have progressed considerably toward refinement, and sophistication of the tests employed in the study of gastric function and disease since Kussmaul, in 1869, first introduced the stomach tube in therapeutics, and Leube, in 1871, first employed the stomach tube for diagnostic purposes.

ROBERT EDGAR MITCHELL, JR., M.D.

EDITOR'S NOTE: Dr. Mitchell is associated with the Department of Gastro-enterology of the Medical College of Virginia.

Abnormal Sensitivity of the Skin to Sunlight

W. HARVEY CABANISS, Jr., M.D.
Charlottesville, Virginia

ABNORMAL SENSITIVITY of the skin to sunlight, although of especial interest to the dermatologist, has not received the consideration which it deserves in the general medical literature. Problems concerned with light sensitivity may confront physicians in any branch of medicine. The purpose of this communication is to review the more important features of this subject. The presentation will include (1) a definition of photosensitivity, (2) discussion of the mechanisms of photosensitization, (3) brief consideration of pertinent physical characteristics of sunlight, (4) a classification of photosensitive diseases, (5) discussion of clinical manifestations, and (6) measures for sun-screening.

PHOTOSENSITIVITY

The term, photosensitivity, will be used to describe diseases which arise, or clearly appear to be aggravated, by exposure to sunlight. The definition must be modified to exclude normal physiological responses, such as ordinary sunburn, and is intended to imply a state of hyperreactivity in the individual concerned. Severity of reaction usually closely parallels the degree of intensity and/or duration of exposure, although an exaggerated physiological response may be evoked by slight stimulus, as occurs in solar erythema. Cutaneous manifestations are usually of a more frankly pathological nature, with development of such lesions as papules, wheals, vesicles, or plaques.

MECHANISMS OF PHOTOSENSITIZATION

Although the mechanisms of photosensitization are unknown, it has been demonstrated that absorption of radiant energy by particulate matter must occur in order for radiant energy to exert an effect in any system, including the skin. It is known that all chemical structures absorb specific wavelengths of radiant energy. It becomes reasonable then to assume that compounds present in skin, after absorbing a quantum of solar energy, initiate in some manner the changes responsible for clinical evidence of photosensitization. Specificity of absorption is strongly suggested by many studies which demonstrate

that a photosensitive dermatitis may be produced by only a small segment of the sunlight spectrum. Few such "photodynamic" substances have been conclusively isolated. Until such compounds are better understood their mechanisms of action must remain speculative.

PHYSICAL CHARACTERISTICS OF SUNLIGHT

Light is measured in terms of wavelengths and the unit of measure is the Angstrom (\AA) which represents a wavelength of 10^{-8} cm. Sunlight contains wavelengths of 2,900 to 14,000 \AA . The shortest of these are ultraviolet, covering approximately 2,900 to 3,900 \AA . Visible light commences near the latter figure and contains wavelengths to about 7,700 \AA . The remainder of the spectrum comprises the infrared rays. Experimental studies so far suggest that for the most part photosensitivity is evoked by wavelengths 2,900 to 8,000 \AA . The energy band of the ultraviolet most often exerts the greatest degree of photosensitivity. Ordinary window glass fails to transmit rays shorter than 3,200 \AA and this may serve as a crude guide in evaluating the area of a patient's sensitivity.

CLASSIFICATION OF PHOTOSENSITIVE DISEASES

For purposes of conciseness the photosensitive diseases have been classified in the following table form.

PHOTOSENSITIVE DISEASES

- I. Substances of external origin which photosensitize
 - A. Photosensitizing as internal medications
 1. Sulfonamides
 2. Barbiturates
 3. Phenergan
 4. Chlorpromazine (Thorazine)
 5. Stilbamidine
 6. Gold
 7. Arsphenamine
 - B. Photosensitizing when applied to skin
 1. Plant origin

Ammi majus (psoralens)	
Fig	Parsnips
Parsley	Meadow grass
Mustard	Lime oil and oil of bergamot

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2. Drug origin
 - Sulfonamides
 - Phenergan
 - Coal tar and derivatives

II. Diseases in which photosensitization is a symptom

- A. Porphyria
- B. Solar erythema
- C. Solar urticaria
- D. Hydroa aestivale
- E. Polymorphous light eruption
- F. Lupus erythematosus
- G. Pellagra
- H. Xeroderma pigmentosum
- I. Infectious diseases

III. Diseases occurring after long-continued exposure to sunlight

- A. "Farmer's skin"
- B. Senile (solar) keratoses
- C. Epidermoid carcinoma of skin

DISCUSSION OF CLINICAL MANIFESTATIONS

Group I. Substances of external origin which photosensitize

A. As internal medications.

It has been known for some time that both sulfonamides and barbiturates are occasionally responsible for instances of photosensitization.¹ The skin eruptions are not characteristic in their morphology, but occurrence largely on the exposed areas of the body indicates a photosensitive element. The great majority of eruptions caused by these two drugs, however, are not associated with photosensitivity.

Phenergan, an antihistamic, has been found to photosensitize occasionally when used either topically or internally; the former more frequently.² In some cases of photosensitivity to this compound, patients exhibited intolerance to ordinary hospital daylight, and required darkened rooms for as long as a month.

Chlorpromazine (Thorazine), which is being widely used in many fields of medicine, has been reported to cause a photosensitive dermatitis; occurring during the 9th to 37th day of therapy.³ The eruption is usually of an erythematous or vesicular nature, occurring on exposed areas. The number of such cases, compared to the drug's frequent administration, is very low.

Stilbamidine, used in treatment of some of the systemic fungus diseases, becomes widely deposited in the skin and remains so for long periods of time. Sunshine apparently causes degradation of the drug into more toxic forms, and reactions of a seriously

systemic nature, notably circulatory collapse, have occurred months after the last injection was administered.

Gold and Arsphenamine have largely been replaced by newer therapeutic agents, and photosensitization to these compounds has become of less significance.

B. Photosensitizing compounds applied to skin.

1. Plant origin.

Extracts of the plant *Ammi majus* (containing the psoralens) have been recognized since the early Egyptians to cause blistering and hyperpigmentation when placed on skin subsequently exposed to sunlight.⁴ Therapeutic application of this principle has recently been made as a treatment for vitiligo.

Many of the common plants indigenous to this country have been found to contain substances having strong photosensitizing activity. Examples of these are the fig, parsley, mustard, wild parsnip, and various meadow grasses.⁵ Most of these contain a common sensitizer, furocumarin, which photosensitizes in the near ultraviolet and violet spectra.

Oil of bergamot, contained in citrus peel, and more rarely oil of lime, lemon, lavender, orange peel, or rosemary, contain agents responsible for the development of "Berlocque dermatitis."⁶ These substances are used in many perfumes and colognes, and after being exposed to sunlight on the skin may initiate the development of patchy areas of redness and blistering, with subsequent scaling and hyperpigmentation. The eruption usually appears about the face and neck, symmetrically distributed. The area of photosensitization occurs between 3,100 and 3,700 Å (ultraviolet).

2. Drug origin.

As previously noted, Phenergan may photosensitize either as a topical or internally administered medicament. The sulfonamides also possess this property, but to a lesser degree.

The ability of coal tar to photosensitize is of appreciable consequence in industrial medicine. Workers coming into contact with the crude tar or its distillates frequently develop varying degrees of reaction on the affected skin surfaces, with a marked tendency to develop hyperpigmentation. This sensitizing principle is used in the Goeckerman treatment of psoriasis, employing coal tar and an ultraviolet lamp or natural sunlight. The sensitizing range is 3,900 to 5,000 Å.

Group II. Diseases in which photosensitization is a symptom

A. Porphyria comprises a complex group of conditions in which the metabolism of porphyrin pig-

ments is deranged. In many instances the elaboration and excretion of these substances, although abnormal, is without clinical symptoms. Three groups of porphyria may be delineated on clinical grounds.⁷ The first, and rarest, begins early in life and is manifested by mutilating photosensitivity, erythrodontia, splenomegaly, hemolytic anemia, hypertrichosis, and hyperpigmentation. This is erythropoietic, or "congenital", porphyria.

The other two clinical varieties of porphyria are frequently associated with demonstrable hepatic dysfunction, and may be of an acutely intermittent or more chronic nature. The former is not associated with photosensitivity, develops during the second to fourth decades of life, and is characterized by bouts of acute abdominal colic as well as a variety of other disturbances.

Chronic porphyria, synonymous with porphyria cutanea tarda, usually appears during the fourth to sixth decades. Photosensitivity is without question an important element of this condition. Frequently a history of blistering, increased pigmentation, hypertrichosis and easy abrasion of the skin is elicited. The exposed skin may assume a violaceous hue, and changes of a sclerodermoid nature may develop. Frequently, alcoholism is an associated finding, or it may be discovered that the patient is a habitual user of the barbiturates. If the use of alcohol or barbiturate can be interdicted, clinical improvement is often gratifying.

The diagnosis of porphyria, aside from the recognition of clinical symptoms and signs, depends on the identification and measurement of several types of porphyrins in the urine and stool. It has not been conclusively shown that these porphyrins, *per se*, are responsible for the associated photosensitivity.

B,C. Solar erythema and solar urticaria may be precipitated upon very brief exposure to sunlight of low intensity. Ultraviolet, visible, or infrared light may be responsible for such an eruption.

D. *Hydroa aestivale* occurs as vesicular lesions on exposed areas of the skin.^{8a} They may simulate areas of vaccination or impetigo. Pitted scars frequently persist. The disorder affects males predominately, often appearing at the age three or four. Spontaneous recovery is usual, occurring during early puberty. A seasonal incidence is striking, with the disease present during the summer months. Exposure to sunlight is thought to be the precipitating factor, although less often artificial heat, or warm or cold wind may cause appearance of the lesions.

E. Polymorphous light eruption although uncommon is not rare. Cutaneous lesions, as the name im-

plies, vary considerably in their characteristics and appear on surfaces exposed to sunlight. The eruption ceases abruptly at the covered areas. Erythema alone may be present, or there may be areas of eczematization, plaques, or infiltrated nodules.⁹ Intense itching is usually present, and excoriation and secondary infection frequently complicate the picture. Persons of fair complexion with light-colored or red hair are particularly susceptible. A positive history of development or aggravation of the process after exposure to sunlight can generally be obtained.

F. *Lupus erythematosus* may be considered to occur in two general forms, the disseminate (systemic) form, and the chronic discoid form, although a line of demarcation between the two is not always clear cut.

In disseminated *lupus erythematosus* skin lesions do not invariably occur, although in the majority of cases they appear at some time. The process on the skin may be acute in nature, with edematous, red plaques resembling polymorphous light eruption, and showing none of the characteristic features of atrophy, hyperpigmentation, telangiectasia, and scaling seen in the subacute or chronic varieties.

Chronic discoid *lupus erythematosus* is a disorder essentially confined to the skin. The eruption is quite similar to that of the less acute varieties of the disseminate form.

In both disseminate and chronic discoid forms there is strong predilection for the exposed areas of skin. Although sunlight is not likely the major factor in its etiology, *lupus erythematosus* has so frequently been observed to appear or become aggravated after exposure to sunlight that persons with this disease should make every effort to avoid exposure to bright sunlight.

As previously stated, differentiation between the serious, systemic form and the relatively benign chronic discoid form is not always easy. Transition from one form to another occasionally occurs. Sunlight has been often held responsible in such instances.

G. *Pellagra* presents, among its distinguishing clinical features, an eruption most often appearing in the spring, in which lesions favoring the exposed areas appear.^{8b} The appearance of these is variable, but an underlying reddish or chocolate-brown hue often predominates. The surface may be covered with scale, blisters, ecchymoses, ulceration, or fissuring. Secondary infection is common. Residual hyperpigmentation frequently occurs, but less often the skin becomes lighter. After repeated attacks the affected skin becomes thickened, hard, rough,

scaly and loses its normal elasticity. Eventually, an atrophic process develops. Skin lesions also occur on the genitalia, and it is thought that perhaps heat alone plays some part in the distribution of lesions.

H. Xeroderma pigmentosum is a rare hereditary disease, most often appearing in early life, in which the skin becomes dry, atrophic, scaly, hyper and hypopigmented, and the site of multiple neoplasms. The latter are of basal cell origin, or less often squamous cell. The exposed skin is most severely affected, and the onset of the disorder is commonly during the summer months. The skin is quite sensitive to the ultraviolet, particularly in the region of 3,000 Å.

I. Infectious diseases: Development of lesions of herpes simplex (cold-sores) in areas exposed to strong sunlight is common. Many factors influence the localization of this disorder, however, and sunlight is but one of many probable ones.

Transitory photosensitization in many of the infectious diseases, such as measles or bacterial infections of the respiratory or gastro-intestinal tracts, has occasionally been noted.¹ This phenomenon is unusual, and of slight clinical importance.

Group III. Diseases occurring after long-continued exposure to sunlight

As in many of the light sensitive dermatoses, persons of fair complexion with light-colored or red hair are particularly susceptible to this group of diseases. Aside from the constitutional predisposition, prolonged exposure to sunlight for several years is usually necessary.

A. "Farmer's or Sailor's skin" are terms used to designate the thickening, drying, and color changes so frequently observed in persons who follow these occupations for many years. The exposed skin, well demarcated from the covered areas, may also show telangiectasia, atrophy, and accentuated skin lines. The face, neck, ears, and backs of the hands show these changes predominantly.

B. Senile (solar) keratoses occur on the exposed skin, most commonly in those who also show the changes just mentioned. Senile keratoses appear as small crusted or scaling lesions of darker color than the surrounding skin. They are precancerous lesions, and if allowed to progress will eventuate into epidermoid carcinoma in 20-30% of cases.

C. Epidermoid carcinomas of the skin are much more common on exposed areas, usually arising from a senile keratosis. Development of erythema about one of the latter lesions, or ulceration, suggests that malignant degeneration has occurred.

SUN-SCREENING

Of practical importance to the physician are measures available to prevent the development of photosensitization in susceptible patients. A knowledge of possible causes should be kept in mind and searched out as far as is practicable. The use of a sun-screen may be very helpful. Sun-screens may be of a "mechanical" nature which protect by their physical action, shielding the skin by the thickness of the applied layer or by reflection of rays. Zinc oxide paste is an example of this type preparation, with or without titanium dioxide.

"Chemical" sun-screens protect by the active photo-dynamic substances incorporated within the preparation. These substances, often possessing a benzene ring with active double bonds, selectively absorb certain wave lengths and thus effectively qualitatively and quantitatively filter solar energy. 10-15% para-aminobenzoic acid (in a suitable vehicle such as hydrophilic ointment or 85% alcohol) is an example of a "chemical" sun-screen. The maximum absorption coefficient of PABA is 2,785 Å, with sufficient activity at other wave lengths to effectively serve as dependable protection from ultraviolet¹⁰. 5% tannic acid in 95% ethyl alcohol has also been found useful as a chemical sun-screen against ultraviolet.

Sams¹¹ has recently emphasized that many screening agents helpful in absorbing the shorter ultraviolet rays and widely used to prevent sunburn possess an inherent ability to photosensitize. This is not so paradoxical as first appears, since the mechanism of action of chemical sun-screens is the active absorption of certain wave lengths of light, and they become in themselves photodynamic agents. If the quantity of the agent is low, some of this acquired photodynamic energy is incompletely absorbed and is transmitted to adjacent skin cells.

Many of the commercial sun-screens, such as Scolex (containing propylene glycol p-aminobenzoate) and Neo-A-Fil (screening agent, tannic acid oleate) may photosensitize by (1) allowing longer exposure with subsequent greater absorption of longer ultra-violet wave lengths and (2) acting as true photodynamic agents because of incomplete absorption. A true contact sensitivity may develop with the use of any of the sun-screening preparations which may mimic a photosensitive dermatitis by distribution, type of lesion, and history of sun exposure.

Chemical sun-screens, such as PABA, all offer maximum protection in the ultraviolet spectrum. Failure to protect after proper application would, therefore, indicate an area of photosensitivity with

initiating wave lengths longer than the ultraviolet rays.

Finally, even perspiration serves as some protection against ultraviolet, as it shows absorption in this range.

Oral administration of Chloroquine Diphosphate (Aralen)¹² and earlier, Quinacrine hydrochloride (Atabrine) have been used to protect patients vulnerable to the sun's rays, notably in those persons having the chronic discoid form of lupus erythematosus. The mechanism of action is not known, but these compounds are of proven worth clinically.

It has been established that gradually increased exposure or "hardening" to sunlight may be of some benefit in protecting certain light sensitive patients. In those with solar urticaria, for example, exposure to sunlight in increasing increments will eventually enable much greater tolerance to develop. Melanin, which is the major pigment of the epidermis, will migrate upward and exert a protective influence, but this must be accomplished slowly. The skin of the face has been demonstrated to be normally twenty times more resistant to damage from the sun than is the skin over the flank.

Most importantly, the light sensitive patient must recognize his peculiar idiosyncrasy and make active efforts to avoid direct sunlight as much as possible, taking care to use a broad-brimmed hat, long sleeves, and even gloves when required to expose himself. In those instances when even indirect sunlight is contraindicated (particularly those with Phenergan photosensitivity and in those having recently received Stilbamidine) shades must be drawn. Ordinary artificial light is usually safe in all instances, though occasionally fluorescent light not shielded by glass may be of significance.

SUMMARY

The condition of photosensitization of the skin

has been described, with an attempt to classify and discuss briefly some of the more important aspects of this problem. Prophylactic management is emphasized.

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Let's Reminisce!

An ad in the October 1874 issue of the Virginia Medical Monthly stated: "A physician in Eastern Virginia, on account of bad health, wishes to dispose of a small country place in a thickly settled section, with the good will of his *practice* (into which the purchaser will be introduced), two and half miles from railroad station. Fifteen hundred dollars thus expended will secure at once a good country practice."

Herpes Simplex

A Dermatologic Enigma

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THE HERPES SIMPLEX VIRUS is one of the most ubiquitous infectious agents affecting man. Nearly 100 percent of the adult population has demonstrable circulating antibodies to the virus. Fortunately, infection due to the virus is usually manifested as the familiar and benign "fever blister" or "cold sore" commonly located about the lips. Less easily recognized are herpetic infections located at other sites such as on the trunk or extremities¹. The frequent association of pain, fever, lymphangitis and lymphadenitis with these lesions may lead to an incorrect diagnosis and consequent error in therapy.

During a two year period (1950-1952) 30 patients with recurrent herpes simplex infection were observed by one of us (E.R.T.) in the dermatology clinic of Walter Reed Army Hospital. The lesions were confined to the lips in 12 patients and to the genitalia in 8. The remaining patients had lesions on the scalp, forehead, eyes, cheeks, chin, neck and chest, arms, hands, buttocks and thighs (Fig. 1). The following case histories illustrate some of the clinical features.

Case 1—A 24-year-old white female had developed fever blisters four days previously about the lips. There had been slight fever at the onset and bilateral submaxillary lymphadenopathy was present. Larger groups of lesions developed on the neck, left shoulder and upper chest (Fig. 2A). The referring physician had suspected herpes zoster but there was no pain associated with the eruption. New lesions contained clear serous material but old lesions contained cloudy material which mimicked impetigo. She received Aureomycin 250 mg. four times a day for five days. The eruption cleared seven days later.

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Grateful acknowledgment is made to the Surgeon General, Department of the Army for permission to publish these cases; to the Armed Forces Institute of Pathology for the clinical photographs; and to Miss Nancy Rogers of the Department of Virus and Rickettsial Diseases, Walter Reed Army Institute of Research for virus isolation and identification.

Case 2—A 22-year-old white male* was seen three days after the development of a dime-sized erythematous area over the knuckle of the right index finger (Fig. 2B). There were several tiny vesicles in the center of the lesion from which herpes simplex virus was isolated. The whole right arm was painful and "stiff". There were lymphangitic streaks up the arm and tender enlargement of the epitrochlear and axillary lymph nodes. Temperature was 100°F. He had had identical attacks at the same site three times in the past two years each of which was treated as a pyogenic infection with parenteral penicillin and each resolved in 8 to 10 days. There

HERPES SIMPLEX - Sites of Recurrent Lesions - 30 cases

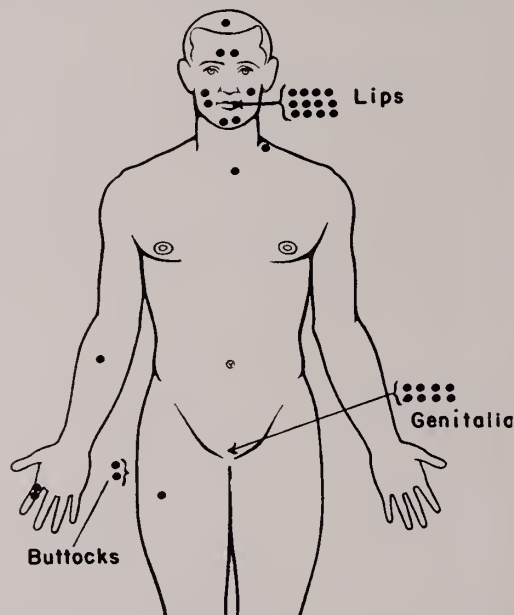


Fig. 1. Each dot represents the site of a recurrent herpes simplex lesion in 30 patients referred to the Dermatology clinic in a two year period.

was no history of trauma preceding any of the four episodes. The patient received oral Aureomycin 250 mg. four times a day and the eruption resolved in about six days.

*Previously reported by Trice and Shafer¹



Fig. 2. A, Lesion on the left shoulder and upper chest of four days duration from Case 1. Some on extreme right are beginning to mimic impetigo. B, Lesions on the knuckle of the right index finger of three days duration in Case 2.

Case 3—A 26-year-old white female* developed a tiny group of tender vesicular lesions two days previously on the palmar surface of the left index finger (Fig. 3A). On the next day the vesi-

resolved gradually during the next 10 days.

Case 5—A 28-year-old Negro female was seen three days after the development of a quarter-sized area of herpetic lesions on the right thigh (Fig. 4A).



Fig. 3. A, Lesions on the left index finger of two days duration in Case 3. B, Lesions on the left cheek of seven days duration in Case 4.

cular fluid developed a more purulent appearance, local tenderness increased and lymphangitic streaks were noted on the hand and forearms. Herpes simplex virus was isolated from the vesicular fluid. She had had two previous similar attacks in the same site during the preceding 10 months which had been treated by surgical incision by her local physician. There was no history of trauma to the site preceding any of the three recurrences.

Case 4—A 24-year-old white male was seen seven days after the development of herpetic lesions on both cheeks associated with slightly tender, mild, bilateral, cervical lymphadenopathy (Fig. 3B). He had experienced numerous episodes of recurrent herpes labialis but this was the first attack involving the cheeks. He received 3 per cent Aureomycin ointment and boric acid compresses and the eruption

The patient had had acute tonsillitis two weeks previously. There had been seven episodes of a similar eruption in the same area during the preceding three years each associated with either upper respiratory infection or menstruation. Each previous attack had been accompanied by low grade fever and had resolved spontaneously in three to four weeks leaving residual hyperpigmentation. She received 3 per cent Aureomycin ointment four times a day for two weeks and the lesions cleared, apparently spontaneously a week later.

Case 6—A 24-year-old Negro male was referred to the venereal disease clinic because of a lesion on the prepuce of 24 hours duration (Fig. 4B). The referring physician was suspicious of lymphogranuloma venereum. A group of six to eight vesicles and small bullae were noted in a dime-sized area on



Fig. 4. A. Lesions on right thigh of three days duration in Case 5. There are also hyperpigmented areas at the sites of previous herpetic eruptions. B. Clear vesico-bullae on the prepuce of 24 hours duration in Case 6. (These two illustrations are also reproduced in Blank & Rake).

the prepuce. Herpes simplex virus was isolated from the vesicular fluid. This was his first episode. There was no regional lymphangitis or lymphadenitis. He received oral Aureomycin 250 mg. four times a day for four days and there was rapid disappearance of the lesions.

DISCUSSION

There is now general agreement that a definite relationship exists between the level of circulating antibodies and the clinical manifestations of herpes infection, resulting in a sharp distinction between *primary* and *recurrent infection*². Primary infection occurs in individuals, usually children, who have had no previous exposure to herpes simplex and therefore possess no specific antibody. Symptomatic primary infection, when clinically apparent, develops acutely and usually affects the mucous membranes of the oropharynx. Constitutional symptoms may be pronounced.

Children with eczema or other forms of generalized dermatitis may develop a severe disseminated herpes simplex (eczema herpeticum) after their initial exposure to herpes virus^{3,4}. This eruption is clinically indistinguishable from the generalized vaccinia (eczema vaccinatum) of atopic children which follows initial contact with smallpox vaccine⁵. Both conditions were formerly described under the term Kaposi's varicelliform eruption. This may be a severe disease with high mortality even when proper supportive measures are taken.

Asymptomatic primary infection is undoubtedly common. Blank and Rake² estimate that perhaps 99 per cent of us develop unrecognized, mild or asymptomatic, primary herpes in early childhood.

Recurrent infection with herpes simplex occurs in individuals with specific antibody and is char-

acterized by transient lesions, relatively mild discomfort and minimal constitutional symptoms. Predisposing factors include fever, menstruation and sun and wind exposure.

When recurrent herpes infection occurs in sites other than the familiar location about the lips, the diagnosis may be confused, especially if one does not have a high index of suspicion for the condition. In some of the cases presented, herpes zoster, contact dermatitis or venereal disease was suspected by the referring physicians. In others pyogenic infections, such as impetigo, folliculitis, sycosis vulgaris or infected abrasion was suspected. Mild fever, lymphangitis and lymphadenitis and the purulent appearance of the vesicles, which occurs on the second or third day frequently in the absence of secondary pyogenic infection, further masked the true nature of the lesions in some cases. The typical grouping of lesions; the history of clear vesicular fluid at the onset; the history of previous recurrences at the same site; and the recognition of viral, non-bacterial lymphangitis, should allow one to reach a correct clinical diagnosis. Virus isolation and identification is a precise and expensive procedure and was done in some of the cases presented for academic reasons only. It is not recommended for routine clinical use.

The effectiveness of treatment for virus diseases is still considered unsatisfactory. Although some investigators in the laboratory have noted an inhibiting effect by the newer, broad-spectrum antibiotics against some of the large viruses⁶ there is still some question of their effectiveness *in vivo*⁷. There is even less evidence of an inhibiting effect by these agents against the small viruses such as herpes². The clinical improvement recorded by

many observers may be partially or wholly due to the eradication of secondary bacterial invaders. It seems only fair to assume that if internal antibiotic therapy shortened the course of the disease in some of the cases herein described it did so by resolving secondary pyogenic infection rather than by a direct action against the virus or the host cell itself.

Topical antibiotic therapy does not seem to materially affect the course of the infection, but the soothing effect of the ointment base may be helpful. For this purpose, however, any simple non-medicated emollient is satisfactory. On the other hand, it has been demonstrated that hydrocortisone and its analogues may have a detrimental effect when used topically and is contraindicated. This is especially true of herpes infections of the eye⁸.

Repeated smallpox vaccinations have been used in the treatment of recurrent herpes and appear to modify the disease in many cases⁹, though there is as yet no scientific basis to account for this so-called interference phenomenon. In almost 20 years experience with the use of repeated smallpox vaccinations one of us (R.W.F.) has noted frequent and lasting cessation of recurrences following this therapy. Vaccinations with herpes virus itself have been used but the results have not been encouraging¹⁰. However, annoying recurrences can sometimes be "aborted" by small doses of superficial x-radiation given to the site of previous attacks when the first tingling sensation signals the onset of a new attack at that site.

Severe primary infections, occurring predominately in children, require supportive pediatric care. In severe generalized herpes simplex and Kaposi's varicelliform eruption steroid therapy may aggravate the condition and is contraindicated during the early phase of the eruption, but may be used cautiously after the first week of the disease.

CONCLUSIONS

Herpes simplex is a medical enigma for many reasons. Clinical manifestations of primary infection vary from unnoticed asymptomatic episodes to severe debilitating illnesses in some children. Recurrent infections occur repeatedly in patients who have high titres of circulating antibodies to the agent. When the eruption occurs at sites other than on the lips it mimics many other diseases including the pyodermas, contact dermatitis, herpes zoster and venereal disease. Though the agent has been isolated and thoroughly studied there is still no specific therapy. Steroid therapy, which is so useful in so

many other conditions, especially of the skin, is contraindicated in this disease.

SUMMARY

Recurrent herpes simplex occurring at sites other than the lips may at times pose a problem in diagnosis. Case histories of six patients with lesions on the trunk and extremities are presented. Diagnosis was confirmed by herpes virus isolation in three.

Mild fever, pustulation, lymphangitis and lymphadenitis are characteristic of herpes infection on the hands and face and often mimic pyoderma, dermatitis venenata or herpes zoster. The distinctive appearance of herpetic lesions and the history of previous recurrences at the same site facilitate a clinical diagnosis in most cases. Virus isolation and identification is a precise and expensive technical procedure and is not recommended for routine use.

Superficial x-ray therapy, judiciously administered, may "abort" annoying recurrences. Repeated vaccination with smallpox vaccine often modifies recurrent herpes and is considered by many the treatment of choice at the present time. Antibiotic therapy appears to have little if any effect in uncomplicated herpetic infections. Topical hydrocortisone may have an adverse effect and is contraindicated.

Proper supportive care is necessary in the management of severe primary herpetic infection in children.

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"Take-It-Easy" Tennis

People over 50 no longer have to sit on the sidelines and watch the youngsters play tennis. Now they can get out on the court with their own "take-it-easy" brand of tennis. The new variation, developed at the University of Florida and called "Florida tennis," makes it possible for lovers of the sport to keep on with it long after aging hearts and limbs would have relegated them to a spectator role under the old rules.

Only two major modifications of the game are needed to slow the pace, according to an article in the *July Today's Health*, published by the American Medical Association. The court is marked off half as wide as the usual singles court and there is a rule that the ball must always bounce once before being returned.

Harry J. Miller, a Sarasota, Fla., writer, said the new variation eliminates "the sudden starting and stopping, the dash back into position, the lunge for those passing shots and the youthful speed required for power volleys at the net. The older player can cover his court thoroughly without worrying about a skyrocketing pulse rate. His experience and skill count as much as, if not more than his physical stamina."

Tests run on older people playing a regular game and a "take-it-easy" game showed that the modified game raised the pulse rate only a few points, while the regular game raised it 20 to 30 points. But

more important, the elderly person's pulse rate did not return to normal during a rest period after a regulation game as did a younger person's.

Miller outlined the rules for "Florida tennis" for players under 40 and for those over 40 as follows:

For players under 40:

In singles, ordinary tennis rules prevail except the court is only half as wide as in a regulation game. The ball is served from behind center of base line into the service (front) court.

In doubles the conventional rules are used, except that players take turns hitting the ball after it is served. As each player hits the ball he retires out of his teammate's way, as in ping-pong.

For players over 40:

In singles the usual rules apply except that the net may be lowered as much as four inches from normal tennis height of 36 inches at center and the ball must always be hit into the back court after the serve. This eliminates running. If it falls into service court, it is out of bounds.

In doubles the same rules apply as for under-40 players, but the lower net may be used.

Miller also told of another variation on the game—triples. The three players on a side take turns hitting the ball. They rotate in back of the base line to keep from running into each other. The rules are the same as for doubles in the under-40 and over-40 groups.

The Existing Danger of Bromide Intoxication

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SINCE THE DISCOVERY of bromides by Ballard¹ in 1826, this group of drugs has been a curse as well as a blessing. Most of the older physicians are well aware of bromide intoxication. We, as younger physicians, are not as conscious to the danger of toxicity² and need to be constantly aware of the possible dangers of bromide-containing preparations. In addition to the bromides used and prescribed by physicians, an ever-constant menace is "over the counter" patent medicine used for sedation. In no instance where bromides are indicated and the patient properly evaluated, should bromides be avoided. Prompt recognition of toxicity can often times prevent the development of serious mental derangement. Many obscure mental cases may not be recognized unless the examiner has the possibility of intoxication by bromides in mind.

Incidence.

At Harrisburg State Hospital¹, among thirteen hundred ninety-nine first admissions, an incidence of 1.5% to 4.7% were diagnosed as bromide intoxications in five years of admissions. In the period from 1934 to 1943, one hundred fifty-eight cases of bromism were reported at Mayo Clinic¹. Many of these cases probably used barbiturates also, but blood levels of bromides were well within the level of toxicity. Todd⁶, reporting from England, noted that in ten hundred twenty-six consecutive admissions, 38% of the patients had received bromides. These figures only emphasize the continuing dangers of bromide usage and the necessity for being constantly alert of their toxicity.

Intoxication.

Acute bromide intoxication is not common. It is difficult to obtain a blood level high enough to cause death or coma since these preparations are secreted rapidly. Acute intoxication may occur in children, in some individuals with arteriosclerosis (especially those with cerebral arteriosclerosis) who have a susceptibility to bromides, and in those with low-salt diets or impaired kidney functions. In any condition, where there has been a loss of chlorides through vomiting or nausea, the danger of toxicity is greater. In this connection, it should be

emphasized that alcoholics who take these drugs to relieve the hangover, may actually have an exacerbation of symptoms from the use of bromides.

Recognition.

Among the cardinal symptoms in toxicity are the mental or emotional disturbances. These may range from irritability to hallucinations, or from confusion to coma. A vast array of disturbances have been described as being attributed to bromides. Generally, mental slowing, decreased emotional balance, and confusion may be found in this condition since basically the cortical processes are depressed with the release of many types of abnormal behavior. Emotionally disturbed individuals and those with a border-line psychotic process are much more susceptible to toxic symptoms. Likewise, the patients who are receiving bromides are made worse, usually, if they have a pre-existing neurosis or psychosis. It may be inferred that some psychoses reported, following electroshock, are actually cases of sub-clinical bromism that are precipitated by electroshock. This, too, emphasizes the very important point in our discussion of bromide intoxication. Patients who have a psychosis should be evaluated from the standpoint of bromism before receiving electroshock treatment since electroshock often endangers the patient's life and will certainly make the psychotic process worse.

Campbell⁴ provides the simplest classification of bromism, but these classes are not rigidly correlated with clinical symptoms due to the factors discussed above, such as susceptibility, electrolyte balance, and pre-existing mental or emotional distress. Campbell's classification is as follows: 1) Mild bromide intoxication—this condition usually occurs when levels of bromide are 50 milligrams or less. The symptoms are mental retardation, drowsiness, disorientation, hyperactive deep reflexes, slurred speech, and nystagmus. 2) Moderate bromide intoxication—this occurs with blood levels of 50 to 150 milligrams. The symptoms are slowing of cerebration, impairment of memory and concentration, nervousness, anorexia, sleep disturbance, skin lesions, such as dark purplish discoloration of the skin or acneiform or maculopapular rash, headache,

fatigue, and dizziness or irritability. 3) Severe bromide intoxication—this occurs with blood levels of 150 milligrams or above. Symptoms are, in addition to the above, thick slurred speech, personality changes, impaired responsibility, rambling, irrelevant thought, confusion, hallucinations, delusions, disorientation, lethargy, confabulation, combativeness, excitability, or even delirium.

From the review of the many possible presenting symptoms, the only positive diagnosis of bromism comes from the high index of suspicion and of blood bromide level. In one of the cases below, the family physician mentioned in the clinical note that he felt the patient was suffering from bromism. The keenness of this physician's observation is very commendable.

Prognosis.

The recovery rate from bromism is very high. It is only in the most severe cases or in the debilitated individual that death occurs. Usually, recovery is complete within two weeks. The usual cause of death in bromism is pneumonia. The mortality rate is less than 1%.

Treatment.

Prevention of bromism can best be effected by the physician through the judicious use of bromide-containing preparations, and by avoiding usage of preparations in which the ingredients are not well known. Pressure is often exerted by detail men in pushing certain bromide preparations as less toxic. The only index of value which is safe is that of careful observation. Ascertain that the patient is eating a well balanced diet containing salt before using bromides.

The specific for treating bromism is sodium chloride using 15 grains enteric-coated tablets, two tablets four times daily. In more severe cases, intravenous chlorides are effective. A spinal tap with withdrawal of approximately 20 cc's of spinal fluid will relieve many of the mental complaints. Campbell recommended paraldehyde as a sedative of choice given hypodermically in doses of 5 to 8 cc's. In the experience of others, however, paraldehyde given hypodermically is very painful and has been supplanted by the use of chlorpromazine. In one case presented below, the use of chlorpromazine (Thorazine) in doses of 50 milligrams four times daily had excellent results. Diuretics, such as ammonium chloride should be given to those in congestive failure to avoid excessive sodium retention. Insulin therapy may accelerate recovery when skin activity is normal (no rash present).

In an attempt to review the disadvantages and

advantages of bromide usage as well as to evaluate clinical conditions which make their use dangerous, two cases have been summarized.

CASE REPORTS

Case I: C.A.—a 57 year old white male who was admitted to Eastern State Hospital on February 2, 1956. In June, 1955, the patient's wife stated that he became depressed and manifested many vague complaints. He visited a physician at that time, but did not take the medicine prescribed. Instead, he visited local pharmacists where he purchased large quantities of a common bromide preparation. The wife did not know the exact amount of medicine taken, but stated he usually took as many as six packages of this daily. This seemed to relieve him a great deal and many of his complaints subsided. However, in November, 1955, a family crisis developed when his home burned. Following this, he became much more depressed than originally. He visited a physician again and was given a preparation with a salty taste which he refilled often (possibly bromide containing). He also continued to take the other preparation at the same time. The patient became very irritable, irrational, hostile, and later, combative, creating an impossible home situation. He was brought to Eastern State Hospital and on arrival was actively hallucinating. He felt he had been visited by Jesus, and was delusional in thinking people were trying to kill him.

Past history reveals that the patient had been in a near-by hospital in March, 1955, for a liver disease. Examination reveals an emotionally agitated, hostile individual. He responded to questioning and revealed a delay in response. Blood bromide level was done and found to be 100 milligrams on admission. He was put on chlorpromazine 50 milligrams four times daily, to which he responded very well, and NaCl 30 grain q.i.d. His condition improved rapidly and on discharge, his blood bromide was 0 milligrams per cent. This was three weeks following his admission. He was rational on discharge, and remembered very little of the events that transpired on his entrance to the hospital.

An interesting finding was that his psychological tests, following his clinical recovery, showed a latent paranoid schizophrenia. This poses a very interesting possibility that bromide may have increased his latent tendencies of paranoid schizophrenia. We have been unable to find any studies on the findings of tests (psychological tests) following clinical recovery from bromide intoxication.

Case II: G.U.—a 37 year old white female who

has a long-standing history of alcoholism and a previous diagnosis of mild mental deficiency with a full scale IQ (Wechsler-Bellevue) of 75. She was first admitted to this hospital in December, 1954, with a diagnosis of sociopathic disturbance—alcohol addiction and mild mental deficiency. We have a very poor history concerning her family, but several siblings are known to be alcoholics. She has been drinking to excess since the age of 30. She also has a history of one suicide attempt one week prior to her admission in 1954. She had three previous trial visits home, and always began drinking shortly after leaving the hospital, and returned to the hospital within two weeks. Her last discharge was on August 29, 1955. Shortly after discharge, she began to drink again and continued until December 21, 1955, when she stopped her intake of alcohol, and began to take a common bromide patent medicine and elixir of terpinhydrate with codeine. Shortly after she began to take these drugs, her husband states that she became ataxic, lethargic, and would sleep for 16-20 hours a day, and would become confused when preparing meals. She was seen by a private physician who stated there was a good chance that she had bromide poisoning and recommended she be brought to this hospital. She was admitted February 8, 1956. According to her husband, she had had no drugs five days preceding her admission.

On admission, she was semi-comatose, delirious, and would not stay in bed. She was disoriented to time, place and person. No hallucinations, delusions, or illusions were elicited. She was ataxic; however, she could walk with some support on either side of her. She could not follow simple directions or assist during the physical examination. There was a maculopapulopustular rash predominately circumorally, and anteriorly on the base of her neck. This rash also extended slightly on the trunk, but not to the arms or hands. Her pupils reacted sluggishly to light and accommodation. All deep tendon reflexes were symmetrical, but hyperactive. Plantar reflexes were negative. Serum bro-

mide level was 100 milligrams per cent. The patient was treated with Reserpine, one milligram t.i.d. and intravenous normal saline preparation. After three thousand cc's of normal saline given over a period of five days, and salt tablets 30 grain t.i.d., she was asymptomatic, but for a slight drowsiness. Serum bromide level at this time was 62 milligrams per cent. She was given one thousand cc's more of normal saline and drowsiness disappeared too. Salt tablets t.i.d. were continued.

SUMMARY

This article is written with the intention of emphasizing the present danger of bromide intoxication. The dangers exist, not only from the use of bromides prescribed by a physician, but also from self treatment from "over the counter" purchases of bromides. Some of the types of symptoms in each of the categories are described. Two cases were presented. The treatment of these two cases both utilized chloride, but by different routes. They differ in the use of drugs to control mental abnormalities.

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Mitral Valvulotomy During Pregnancy

Report of a Case

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"THE PLACE OF VALVULOTOMY in pregnancy is by no means settled . . . and it would appear indeed that a substantial body of authoritative opinion is against this type of surgical therapy in pregnancy except under rare circumstances."¹

The criteria for valvulotomy are, in general, applied to cases of mitral stenosis with incapacitating symptoms and little regurgitation. The relative contraindications to this procedure are irreversible pulmonary vascular changes, latent rheumatic activity, major involvement of other valves, history of emboli, auricular fibrillation, and being in the older age groups.² If one feels impelled to perform a valvulotomy during pregnancy, it is certainly preferable to perform it in the first trimester.³

In this controversy, we do not wish to take sides. Our sole purpose is to present yet another case of a successful mitral valvulotomy in early pregnancy. By taking this case into consideration and adding it to a series of cases, some one may be assisted in settling the question in one direction or the other. Thus, the procedure of mitral valvulotomy in pregnancy might assume its rightful place in the ever-expanding armamentaria of the surgeon, internist, and obstetrician.

CASE REPORT

D. L., MWH #6191, a colored female, age 34, gravida iv, para ij, abortus j, was first seen by one of us (J.G.W.) on August 1, 1955, with the chief complaint of shortness of breath, swelling of the ankles, and nausea.

She gave a history of joint pains at the age of 6 years which persisted for several months but did not recur. During her 'teens she noted slight dyspnea on strenuous exertion. During the last ten years the exertional dyspnea had gradually increased in severity so that for the past few months before initial examination she was free of symptoms only when at rest. Orthopnea and ankle edema developed during this time. On July 2, 1955, digitalis therapy was first begun by another physician, which did not relieve the dyspnea but did evoke severe nausea and vomiting. Her edema, however, did disappear. There was no family history of rheumatic fever.

She had an appendectomy at age 16 years. At the age of 19 years she conceived but aborted at four months. She delivered subsequent pregnancies uneventfully at term at the ages of 20 and 26 years respectively. Past history was otherwise irrelevant. Her last normal menses had begun May 19, 1955, although she had "spotted off and on" in June. Pregnancy was assumed with the estimated date of confinement being February 26, 1956.

Physical examination showed the heart to be moderately enlarged. Rhythm was regular. There was a moderately loud rumble of mitral stenosis, moderate increase in the mitral first sound and a Grade I apical systolic murmur. Blood pressure was 100/60 mm. Hg. The neck veins were not distended, and the lungs were clear. There was no edema present at this time. Physical examination was otherwise not remarkable and pelvic examination was deferred.

Digitoxin therapy was stopped and she was advised to restrict her salt intake. She was next seen on August 8, 1955. Nausea had cleared. She complained of dyspnea only on exertion but had noted slight evening ankle edema. The erythrocyte sedimentation rate on this date was 48 mm./hr. (Wintrobe). On August 13, 1955, the blood pressure was 105/70 mm. Hg. and the patient had no complaints. Fluoroscopy revealed a mitral configuration of the heart with moderate enlargement of the left auricle and right ventricle. A pelvic examination definitely confirmed the diagnosis of pregnancy at this time. Her next office visit was on August 27, at which time, because of peripheral edema, she was given Dicurin 1.5 cc. intramuscularly. Oral ammonium chloride therapy was prescribed and she was referred to Dr. Lewis H. Bosher, Jr., in Richmond, for possible valvulotomy.

She was admitted to St. Philip Hospital of the Medical College of Virginia, on August 30, 1955. Physical examination at this time revealed inspiratory medium coarse moist rales at the base of the left lung. There was a forceful palpable precordial pulsation and apical thrill. The PMI was in the anterior axillary line in the fifth and sixth intercostal

spaces. There was a Grade II to Grade III systolic murmur located just medial to the apex and becoming louder toward the sternum. The murmur was louder on inspiration. P₂ was greater than A₂. There was a loud rumbling diastolic murmur at the apex with a fairly loud snapping mitral first sound. The liver was palpably enlarged two finger-breadths below the costal margin and was nontender. There were no arthropathies. The uterus was enlarged to a size compatible with a pregnancy of 12-14 weeks duration.

Laboratory studies revealed a hemoglobin of 9.9 grams %, RBC 3.57 million per cu. mm., WBC 10,000. Total protein was 6.8 gms. %, albumin 3.5 gms. %, globulin 3.3 gms. %, FBS was 60 mg. %. BUN was less than 7 mg. %. Thymol turbidity was 3 units. Prothrombin concentration was 55%. Bleeding time 1½ minutes, clotting time 5 minutes. Urinalysis revealed a specific gravity of 1.016 with a 1-plus albumin and 6-7 WBC's per high power field. Cephalin flocculation was 2 positive.

X-rays revealed a cardio-thoracic ratio of 54%. EKG revealed a sinus tachycardia.

The venous pressure was 120 mm. water and the arm to tongue circulation time was 25 sec.

She was digitalized and given Mercuhydrin by injection. After four days of this therapy plus bed-rest she appeared much improved and the previously described systolic murmur had almost completely disappeared. On September 6 a left atrial puncture was performed which revealed a pattern which was compatible with pure mitral stenosis.

She was given 300 cc. of packed red cells prior to surgery and on September 16 a mitral commissurotomy was performed for a "very tight" stenosis. (At this time the pregnancy was of about 15 weeks duration.) A good opening was obtained with the production of a Grade I insufficiency.

Postoperative course was uneventful. A soft apical systolic murmur was detected on auscultation. Postoperative quinidine was not given because of pregnancy. On the ninth postoperative day substernal pain developed which was worse at night. This cleared spontaneously and she was discharged September 28, 1955, essentially asymptomatic. She was instructed to take digitoxin 0.1 mg. daily and penicillin, 200,000 u. b.i.d. for 30 days. It was further advised that penicillin or a triple sulfa preparation be taken orally for the duration of the pregnancy.

She was next seen at the Pratt Clinic on October 8. Blood pressure was 80/60 mm. Hg., weight 134 pounds. Hemoglobin 11 grams %. She still had a grade I rumble of mitral stenosis, with grade I

mitral systolic and grade II tricuspid systolic murmurs. There was moderate accentuation of P₂ but no noticeable accentuation of M₁. There was a normal sinus rhythm. She had considerably less exertional dyspnea and no orthopnea. The lungs were clear to percussion but there were a few dry pleural crackles in the left base. There was minimal ankle and sacral edema. She was placed on therapy consisting of nutritive capsules and instructed to continue taking Digitoxin 0.1 mg. daily for an indefinite period of time. She was instructed to continue oral penicillin therapy throughout pregnancy.

She received her initial routine prenatal examination on October 22. Blood pressure was 110/70 mm. Hg. Weight was 131¼ pounds. There was no edema. Urinalysis was negative for albumin and sugar. Hemoglobin was 12 grams %. Serologic test for syphilis was negative. Pelvic examination revealed an adequate pelvis of anthropoid configuration. The fundus uteri measured 22 cm. above the symphysis pubis. Quickening had occurred about 2 weeks previously (about October 8) making the Estimated Date of Confinement about March 15, 1956 (quickening date plus 5 months and 7 days). There was a moderate nonspecific leukorrhea and vaginitis, for which a sulfonamide-containing vaginal cream was prescribed with satisfactory relief of symptoms. The prenatal course remained normal. Never more than a trace of edema developed. Maximum weight attained was 148¾ pounds. Blood pressure ranged from 100/60 mm. Hg to 120/70 mm. Hg. She was maintained on digitoxin, penicillin-V, salt-poor diet and a prenatal dietary supplement preparation. She suffered a fall on December 2, 1955, which evoked a "pulling sensation" and pain in the region of the thoracic incision. The discomfort was ascribed to pulled adhesions and the symptoms gradually vanished. The onset of labor and amniorrhexis occurred spontaneously on February 17, 1956, and she was admitted to Mary Washington Hospital, Fredericksburg. Sedation during labor consisted of Lorfan* 1 mg., alphaprodine 80 mg., and scopolamine 0.5 mg. Patient cooperation during labor was excellent and the analgesia was fair. After 3 hours 46 minutes of labor, she was delivered of a 7 pound, 5 ounce vigorous normal male infant by low Elliott forceps under nitrous oxide-oxygen anesthesia. Methylergonovine 1 cc., intravenously was given with delivery of the shoulder. The placenta separated spontaneously and delivered 90 seconds after the baby. Pitocin 1 cc.

* Brand of Levallorphan. Supplied by Dr. Thomas C. Fleming, Hoffman-LaRoche, Inc., Nutley, N. J.

intramuscularly was then administered. Blood loss was estimated at 70 cc. A first degree perineal laceration occurred which was repaired. Her condition during labor and delivery was excellent. Nevertheless a postpartal tubal sterilization was strongly advised but the husband refused permission. Postpartal care consisted of salt-free diet, digitoxin 0.1 mg. daily, parenteral penicillin, and suppression of lactation with oral stilbestrol and intramuscular testosterone. The postpartal course was nonmorbid (standards of the American Committee on Maternal Welfare) and she was discharged on the third day. She was last seen on March 31, 1956, at which time there were no symptoms referable to her cardiac

pathology, although she had carefully avoided strenuous exertion. Pelvic organs were normal excepting some moderate postpartal cervicitis for which an office cauterization was performed. She was given contraceptive advice and exhorted vehemently always to practice contraception.

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The Pratt Clinic

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Widen Your Civic Interests

American doctors should take a more active role in politics, says Rep. Walter Judd (R., Minn.), himself a physician. Many physicians work such long hours and pay such close attention to their patients that they sometimes fail "to take the longer view. . . . They won't get into politics; they won't discuss issues with their patients; they won't even bother to vote; they just go ahead and work. They're good in their profession. But what makes them good specialists sometimes makes them poor citizens."

The Congressman's opinions of his former colleagues appear in the June issue of *MEDICAL ECONOMICS*. He finds evidence for his views in the small amount of mail he receives from physicians on nonmedical issues.

"Doctors seem to concentrate on their own interests more than most groups. I don't say this critically; it occurs as a result of their specialization.

But we get less mail from doctors on general issues—international policies, farm policies, education, etc.—than from practically any other group in our population."

As further proof of physicians' occasional "narrowness," Dr. Judd cites the fact that they "pretty largely have the same point of view. They have lived together through medical school, in the medical society, and in the hospital staff rooms. They have a cup of coffee while they're in the OB room waiting for a baby. They're very much confined to their own group. They talk things over and little by little they come to think alike."

The antidote for such conformism? The doctor "ought to be more like the barber and talk to his own patients. The barber talks to you about everything. But the doctor only talks about your gall bladder or your toenail."

Listeria-Monocytogenes Meningitis

Case Report

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RALPH HARE

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LISTERIA MONOCYTOGENES occurs as an infection of various hosts, including the rabbit, guinea pig, fox, cow, sheep, goat, chicken and canary. It causes sporadic infection in man but as of 1952 only approximately 20 cases of meningitis in man have been reported from various sections of the world.¹

REPORT OF CASE

CLINICAL DATA

A 75 year old white female was admitted to the hospital with a chief complaint of nausea, vomiting, and abdominal pain of one day duration. She was apparently in good health until the onset of her present illness. Five hours previous to admission she became confused, restless and unresponsive. The patient had had cardiac disease with decompensation for some years controlled with digitalis.

On admission to the hospital, the patient was acutely ill, restless and did not respond to questioning. Rectal temperature was 104°. Blood pressure was 180/100. The heart and lungs appeared normal. Liver, spleen and kidneys were not felt. There was a questionable mass in the epigastric region which was tender. On admission the white count was 23,800 with a shift to the left. Red blood count was 4,950,000, hemoglobin 15.4 gms. and NPN 44 mgm.%. Urine revealed a four plus albumin, two plus sugar and was positive for acetone. Blood sugar was 217 mgm.%. The day following admission the white count was 16,800. X-ray examination of the chest showed evidence of cardiac enlargement with some pulmonary congestion.

The day following admission she showed evidence of a stiff neck for the first time and a spinal tap was performed. The fluid was cloudy and contained 1200 white cells. The predominating cell was the neutrophilic leukocyte. Colloidal gold curve was reported as 0001221100. Spinal fluid culture revealed a gram positive rod, resembling a diphtheroid, later identified as *Listeria monocytogenes*.

The patient was treated with Thorazine, parenteral

fluids, Wangenstein suction, achromycin, terramycin, sulfadiazine, penicillin and digitalis. She failed to respond to treatment and died three days following admission.

PATHOLOGICAL FINDINGS

Grossly the brain was smaller than normal weighing 760 grams. There was some atrophy, marked edema, and over portions of the cerebral hemispheres and base of the brain thickening due to purulent exudate. The blood vessels showed moderate arteriosclerosis.

Microscopically sections of the areas of involvement revealed an inflammatory reaction composed of polymorphonuclear leukocytes, round cells and plasma cells.

Cultures of the heart blood and brain at post-mortem examination revealed an organism identical to that grown from the spinal fluid. Additional findings at postmortem were cirrhosis of the liver, cardiac hypertrophy and dilatation, aneurysm of the aorta, terminal pulmonary edema and congestion, and a ventral hernia.

DISCUSSION

The first organisms seen on spinal fluid culture were thought possibly to be diphtheroids. This was considered as the agent but it was also felt that they might be contaminants. When identical organisms were found in the heart blood and brain at postmortem, further studies were carried out and *Listeria monocytogenes* were isolated. This organism was further confirmed by the Department of Bacteriology of the State Health Department.

The organisms under the genus *Erysipelothrix* include *Erysipelothrix rhusiopathiae* and *Listeria monocytogenes*.² The two organisms are related bacteriologically but produce different diseases in man. Bacteriologically our organism was aerobic giving scanty growth on blood with the formation of small, moist, colonies showing some hemolysis. It was mobile and fermented glucose, maltose, lactose and rhennose, with the formation of acid but no gas. It was Indol negative. The organism was gram

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positive and strongly resembled the diphtheroid.^{3,4} There was a tendency to grow in short chains. Animal studies were not performed.

Listeroides has been reported as causing a host of infection in animals as noted previously. In man the exact source of infection has not been found. Studies on the background of our patient revealed only that she was from a community adjacent to ours, and that she lived in the country. A chicken coop was on the patient's property but no chickens were present. However, the history indicated that she had raised chickens in the past. The immediate contact after investigation could not be definitely ascertained.

The organism in man has caused a purulent meningitis and encephalitis, and at one time was thought to be the cause of infectious mononucleosis. Our case presented a typical purulent meningitis without encephalitis with no gross or microscopic finding demonstrated in other organs. The organism is resistant to sulfonamides and is sensitive in vitro to aureomycin, less sensitive to terramycin and chloramphenicol. It is apparently resistant to penicillin. Our patient was treated with penicillin, achromycin, sulfadiazine and terramycin but failed to respond.

SUMMARY

A case of fatal purulent meningitis in a 75 year old white woman due to *Listeroides monocytogenes* is reported. It is thought to be of interest, first because of the limited number of cases reported in man, secondly because of confusing the organism with the diphtheroid which it resembles, and from which it must be differentiated. This is important because the later organisms can also cause meningitis and might in other instances be considered a contaminant overshadowing the etiologic agent, and thus disregarded.

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Parke-Davis Begins Publication.

Parke, Davis & Company has announced publication of a new periodical, *Pediatric Patterns*, which will enable physicians to determine the incidence of communicable diseases in any given area.

The periodical will include last-minute reports on poliomyelitis, diphtheria, streptococcal infections, measles and whooping cough, and will be circulated at regular intervals to some 140,000 physicians throughout the United States, Alaska and the Hawaiian Islands.

Graydon L. Walker, vice-president, said the six-page publication will carry charts showing inci-

dence of communicable diseases on local, state and national levels. He added that editorial material in the brochure will "highlight and discuss the more important disease trends."

Pediatrics Patterns supplements Parke-Davis' three other external publications—*Polio Patterns* and *Therapeutic Notes for physicians* and *Modern Pharmacy* for pharmacists.

Polio Patterns, which was inaugurated in 1955, will continue to be published weekly during the 1956 polio season and will contain "detailed information on poliomyelitis."

Cervical Thymoma

A Case Report

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MRS. A.L.G., a young matron of 35 years came to see me in September, 1951, complaining of fatiguability and extreme weakness. She was the mother of two children and her domestic duties had become an impossible burden. The onset of this condition was very gradual—probably over several months.

The only significant finding in this healthy appearing young woman was a tumor in the neck, filling the suprasternal notch and extending upward about two inches. The tumor was soft and freely movable, not tender, and very suggestive of a cyst. When she elevated the chin the tumor became much

ualized and mobilized as illustrated in the drawing. It was very soft, smooth, and of a pinkish color. It was attached to the thyroid at the junction of the left lobe and isthmus. The pedicle was about three-quarters inch thick and the tumor was about two inches in diameter. It was easily removed by

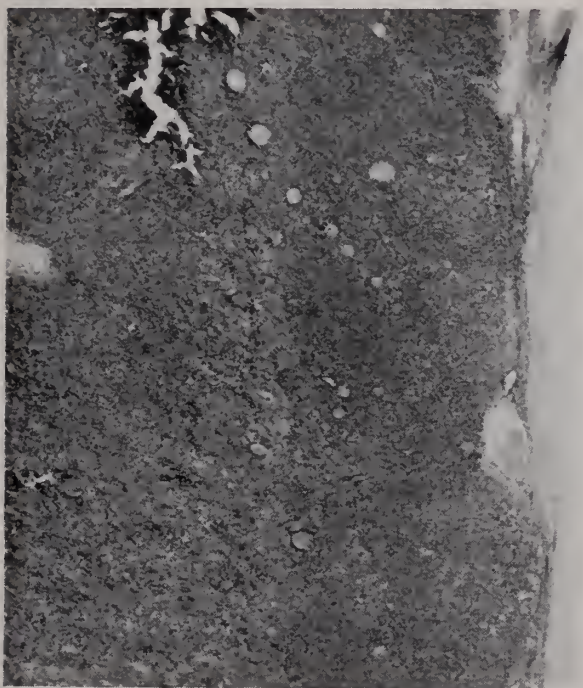


Fig. 1.—Lower power photomicrograph of tumor revealing thin cortex, pale medulla and numerous germinal centers.

more prominent and when she bowed her head it would almost disappear behind the sternum. It was thought to be a thyroid cyst and operation advised and accepted.

Operation: September 29, 1951. The usual thyroid collar incision was made, the tumor easily vis-

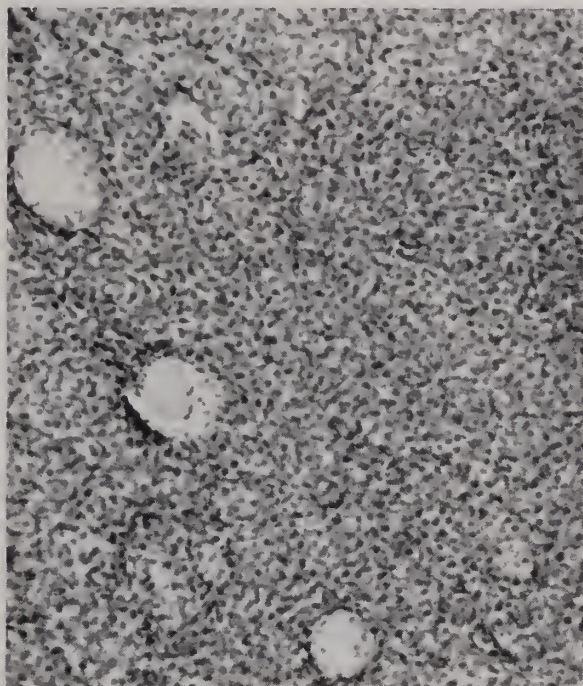


Fig. 2.—Higher power photomicrograph of the tumor revealing germinal centers with thin cuff of lymphocytes. Notice also suggestion of thin rows of lymphocytes between groups of epithelial cells.

clamping the pedicle close to its attachment and ligation and excision. It was surprisingly friable, but no large vessels were noticed. The wound was closed in the usual manner but with a penrose drain in the large cavity behind the sternum from which the tumor came.

The patient made a smooth recovery and by the time she left the hospital she reported much improvement in her strength. Dr. Regena Beck, pathologist, reported the tumor as a benign tumor of the thymus, size five by five by three and a half centimeters.

At the present time, Dr. Back having retired, we

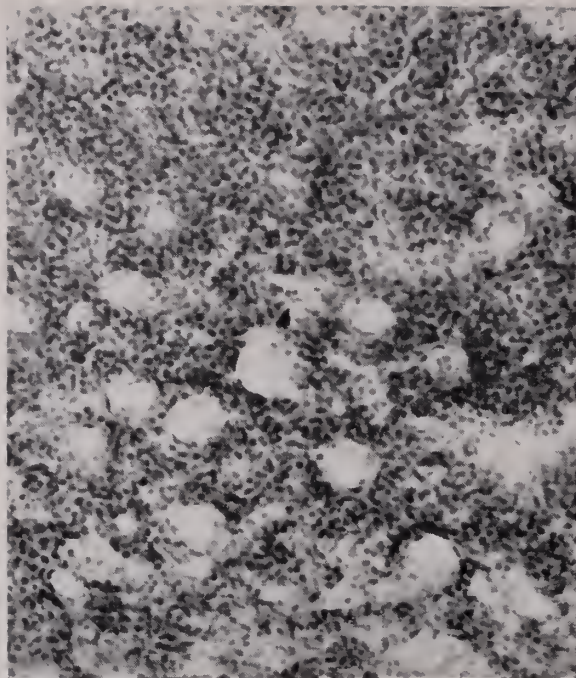


Fig. 3.—High power photomicrograph of another field of the tumor revealing thin walled spaces resembling lymphangiomatous structures.

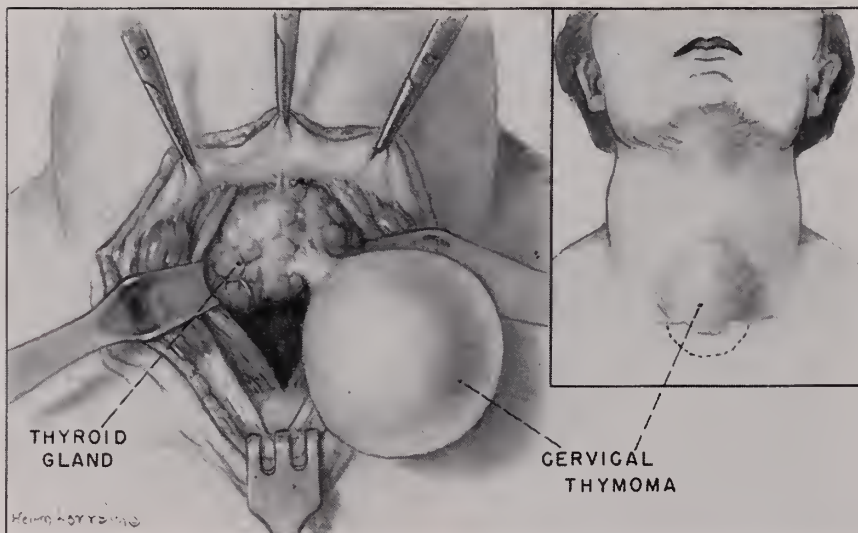


Fig. 4.—Photograph of drawing illustrating the tumor as it appeared in the incision before the pedicle was clamped and tied.

are able to find only one slide in her laboratory which was a permanent slide made from a frozen section. The three photomicrographs reproduced herewith were from representative areas in this slide.

Myasthenia Gravis was not suspected until after the pathologist's report. In fact a thymoma in this location is so rare that it was not suspected either. No tests were made for Myasthenia Gravis but I

believe she had a mild case. At the present time this woman is holding down a secretarial job along with her household duties and feels that she has made a complete recovery, in fact she states that she regained her strength shortly after she left the hospital.

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Inferior Vena Cava Ligation

Four Case Reports

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INFERIOR VENA CAVA ligation was an infrequent operation before 1940 but has gained recognition in recent years, primarily in the treatment of thromboembolic disease. The relationship of thrombophlebitis to pulmonary embolus was first established in 1846 by Virchow¹. There were only 136 of these ligations reported prior to 1949². The early ligations were necessitated by operative trauma. Kocher accidentally performed the first of these in 1883. Trendelenburg performed three inferior vena cava ligations in 1904 through 1906 for pelvic septic thrombophlebitis with a 66 $\frac{2}{3}$ % mortality. J. Holmans suggested venous interruption to prevent pulmonary embolus in 1934 and did much to stimulate interest in this field³. Krotoski proposed the application of anticoagulants to the treatment of thromboembolic disease in 1935⁴.

Thromboembolic disease seems to be steadily increasing^{5,6}. Approximately 1% of operative cases develop venous thrombosis; 60% of these show pulmonary emboli with a 30-40% mortality⁷. In a report of over two million operative cases, 1 in 800 died from pulmonary embolus⁸. 40-85% of fatal pulmonary emboli have no evidence of venous thrombosis prior to death^{1,5,9,10,11,12,13}.

It has been generally accepted that most venous thrombi originate in the deep veins of the lower legs and feet, largely established by studies using phlebography. A recent pathological study indicates that a large percentage of venous thrombi are located in the pelvis and the thighs proximal to the superficial femoral vein¹⁴. The incidence of embolic death was not lowered at the Massachusetts General Hospital by prophylactic bilateral superficial femoral vein ligation¹⁵. Twenty-six of 1,929 patients so treated died of pulmonary emboli. These and other reports seriously question the indication for superficial femoral vein ligation in the prophylactic treatment of thromboembolic disease^{9,13,16}. However, Dr. Ochsner, who has considerable experience in this field, claims good results with this procedure if there is no evidence of thrombosis at the site of ligation¹⁷.

Differentiation of thrombophlebitis from phlebo-

thrombosis with regard to management is now considered dangerous by some¹⁴. A free floating head is found at the proximal end of an inflammatory clot. This may break off, producing an embolus; also there is a high incidence of venous thrombosis in the opposite leg.

Anticoagulant therapy seems to be effective in 85 to 90% of cases with venous thrombosis but it is not completely safe, probably does not prevent an embolus from occurring once a thrombus is formed, has contraindications to its use, and fails to prevent emboli in some cases^{1,11,12,17,9}.

Inferior vena cava ligation is a safe and effective method of preventing pulmonary emboli from venous thrombosis. Some fatalities have been reported if the ligation is attempted immediately following a large pulmonary embolus before the patient has stabilized¹⁷. The principal deterring factor to its use is the high morbidity rate reported in many papers. However, reports on an approximately equal number of cases indicate a relatively low morbidity which may be related to pre-existing venous thrombosis^{9,18,19,20,21,22,17,23}.

Several studies in the operating room and on cadavers have shown adequate collateral circulation following inferior vena cava ligation. The principal collateral pathways are through the lumbar, vertebral and ovarian veins^{18,24,21,25,22}.

The indications for inferior vena cava ligation which have been listed in the literature are shown in Table #1^{17,26}. Those surgeons who consider the morbidity great would only use this type of ligation as a life saving measure.

CASE REPORTS

Case #1 (B-15-36-82). This 45-year old physician was admitted to the private surgical service at the Medical College of Virginia on October 16, 1952, with pain in the left groin for two days. He had waked up with an aching pain which was made worse by walking. A tooth was extracted 12 days previously. In 1944 he was discharged from the Army with the classical findings of Raynaud's disease.

Physical examination: Temperature 101°, pulse

From the Surgical Service, Medical College of Virginia, Richmond, Virginia.

90, respiration 20, apprehensive. The feet and hands were cool and the hands moist. Peripheral pulses were good with no swelling, heat, redness or venous distention. There was tenderness along the course of the left long saphenous vein for six inches below the inguinal ligament. The vein was palpable and cord-like.

Laboratory findings: On admission, hemoglobin 15.4 grams, white cell count 14,900 with 75% Polys, BSP retention 19%, and total protein 6.0 grams with albumen 3.3 grams and globulin 2.7 grams. A gastrointestinal series showed a hiatus hernia and numerous diverticula of the colon.

After one week he showed clear-cut evidence of deep vein involvement in the left leg and was placed on vigorous anticoagulant therapy using Heparin and Dicumarol. He had almost complete disappearance of symptoms on November 1, 1952, when he had a sudden onset of severe left chest pain, cyanosis, shock and EKG evidence of cor pulmonale.

The left iliac vein was exposed and a clot was found to extend to within a few centimeters of the vena cava. There was marked lymphadenitis. The common iliac vein was ligated above the thrombus. He was treated with antibiotics and anticoagulants postoperatively and had almost no swelling. At the end of a week he had severe pain in the right groin, tenderness over the right common femoral vein, swelling of the right leg and distended superficial veins.

On November 10th the vena cava was explored extraperitoneally and the thrombus was found to extend to within four centimeters of the renal veins. It was ligated and a right lumbar sympathectomy was done. Anticoagulants were discontinued on November 16th, due to serious hemorrhage. Swelling remained in the right leg postoperatively. By the time of his discharge on December 5th, 1952, it had largely disappeared. He was instructed to wear elastic stockings indefinitely.

At present he has minimal ankle and pretibial edema which subsides at night. He has continued to wear elastic stockings. Walking up a hill causes pulling in his legs and they feel like dead weight. He gets pain in the groin on fast walking and running is out of the question. Since the vena cava ligation he has had pain on erection and severe pain on ejaculation causing a loss of libido. He has had no varicosities, dermatitis, leg ulcers, or subsequent attacks of thrombophlebitis. He returned to work February 16, 1953, and has limited his practice to four hours of office appointments a day. He has stopped operating and making house calls, partly

through necessity and partly preference. He states that he is pleased with the results of the operation.

Case #2 (B-18-36-83). This 57-year old colored male was referred to the surgical service of St. Philip Hospital on January 15, 1954, because of an ulcer over his right patella resulting from minimal trauma three weeks earlier. It had been refractory to treatment at home and was painful on walking. He was a known hypertensive for many years and had had a slight stroke eight years previously with no residual.

Physical examination. Pulse 68, respirations 18, blood pressure 190/130. The eye grounds showed two plus hypertensive retinopathy. The PMI of the cardiac apex was in the 5th intercostal space anterior axillary line and a loud harsh, apical systolic murmur was heard. The aortic second sound was greater than the pulmonic. There was moderate symmetrical prostatic hypertrophy. A 2 x 2 cm. deep ulcer with induration surrounding it was located over the right patella.

Admission laboratory studies revealed hemoglobin 13.6 grams, white cell count 4,500 with 60% Polys, total proteins 6.8 with albumin 4.5 and globulin 2.3, Wasserman positive 1.2, BUN 13 and FBS 42. Repeat fasting blood sugars were 80 and 92 with a normal glucose tolerance curve. EKG showed left ventricular strain and coronary insufficiency. Beta staph aureus coagulase positive was cultured from the wound.

The patient was placed on hot wet dressings, physiotherapy and antibiotics. A surgical debridement was performed January 29, 1954. On February 5, 1954, a hot, swollen, tender right calf developed and the patient was placed on Cyclocumerol with an initial dose of Tromexan. He developed pleuritic pain and a cough on February 9, 1954, with hemoptysis, a minimal density on x-ray and rales the next day. The prothrombin time had been maintained at adequate levels, approximately 10.20% of normal. On February 12, 1954, exploration of the right common femoral vein revealed thrombosis up to the inguinal ligament. The inferior vena cava was then ligated. He was kept on anticoagulants for four days; his legs were wrapped and physiotherapy was continued. Postoperatively his left foot was edematous. On March 8, 1954, a skin graft was placed over the ulcer. He was discharged March 26, 1954, with a stiff right knee and only minimal leg swelling.

He was followed in the Out-Patient Department. On April 13, 1954, he had edema on standing which subsided with elevation and was improving. He used Ace bandages. When last seen in the clinic

on August 17, 1954, he had no complaints, and the edema was practically subsided.

Case #3 (B-19-13-10). This 41-year old, married, white male automobile mechanic was admitted to the surgical service on May 12, 1954. The preceding day he strained his left leg while doing heavy lifting. A slow but progressive aching pain developed in his left thigh and to a lesser extent in the left lower abdomen. The leg became swollen, cold and darker. For six hours prior to admission the pain was intense.

Physical examination: temperature 102°, pulse 104, respirations 18, blood pressure 122/80. This muscular, middle-aged white male was in acute distress with a swollen, mottled, painful left lower extremity. The left femoral artery pulsation was weak with no peripheral pulse on the left. The color change ended at the hip. The left foot was cold with early cyanosis of the toes, engorged veins on the dorsum of the foot and hyperesthesia.

Admission laboratory work revealed hemoglobin 20.2 grams and white cell count 7,200.

The patient was placed on bed rest, elevation of legs, Heparin and antibiotics. On admission the left lumbar sympathectomy block with procaine improved the color and pulse in the left leg and decreased the pain. Approximately 12 hours after admission he developed signs of pulmonary embolus including pleuritic pain, hemoptysis and rales at the right base. An emergency retroperitoneal inferior vena caval ligation was performed 2 cm. above the origin of the vein. Thickening, suggesting thrombosis, was noted in the left common iliac vein. He had severe unexplained abdominal and lumbar pain postoperatively which was controlled by a continuous epidural block. Ace bandages were placed on the legs immediately postoperatively, and the legs were elevated. Ambulation was begun on the fourth day. Heparin was discontinued on the operative day. One week postoperatively he developed thrombophlebitis in the right long saphenous vein with marked edema and was placed on Heparin for six days with other supportive measures. He was evaluated for possible polycythemia vera but this was ruled out because there was no leukocytosis and a normal arterial oxygen saturation. The bilateral leg edema slowly subsided but was still one to two plus on discharge, June 2, 1954. In July, 1954, he had only slight bilateral swelling, but it increased with ambulation. In September, 1954, he was readmitted to the hospital with a painful swollen right leg. He had been treated for two months for bilateral phlebitis with antibiotics and parenzyme, and the left leg had

improved. The right leg gradually improved in the hospital, and he was discharged October 5, 1954, with only edema of his right foot on ambulation.

In answer to a questionnaire in June, 1955, the patient indicated that he had moderate leg edema at all times though he has worn elastic stockings constantly. He has suffered with leg pain which he did not have prior to the operation. He has developed no leg ulcers, stasis, dermatitis, or varicosities. He has had several severe attacks of thrombophlebitis which have kept him from working. At other times he can work if he does not stand on his feet.

Case #4 (B-15-36-22). This 44-year old colored male was admitted to the private medical service, St. Philip Hospital, on June 28, 1954, with a painful swollen right leg and high fever. In February, 1954, he was hospitalized for two weeks from thrombophlebitis of the right long saphenous vein. From May 28, 1954 to June 11, 1954, he was hospitalized with fever, hemoptysis, left lower chest pain, diminished breath sounds, dullness, rales in the left base and an x-ray picture compatible with pneumonia. He was treated with antibiotics with partial response. After discharge he continued to run a high fever and develops the sign of thrombophlebitis in his right leg.

Physical examination: temperature 99, pulse 80, respirations 20, blood pressure 120/80. There were decreased breath sounds in the left base. The right leg was swollen, hot, and tender with a positive Homan's sign.

Laboratory findings: hemoglobin 13 grams, white blood count 10,500 with 82% Polys. Sedimentation rate 52%, prothrombin concentration 50%. P.A. film of the chest showed a slight density of the left costophrenic angle, questionable pneumonia, questionable infarction.

He was placed on bed rest, heat, elevation, antibiotics and Dicumarol. The prothrombin concentration was maintained between 20 and 40%. His leg appeared to be improving. However, on July 6, 1954, there was increased heat and tenderness in the right leg and tenderness was noted in the left calf. On July 9, 1954, due to progression of the thrombophlebitis, in spite of treatment, the right femoral vein was explored and found to be markedly inflamed and thrombosed. The superficial femoral veins were ligated. The inferior vena cava was then ligated since the femoral vein had not been ligated above the level of thrombophlebitis, and there were signs of a thrombus in the left leg. He had severe edema, leg pain, and thrombophlebitis in both legs

in the early postoperative period. On discharge, August 18, 1954, slight edema remained.

In response to a questionnaire in June, 1955, the patient complained of severe edema which subsides at night. He has continued to wear elastic stockings, and the edema is improving. His leg pain is also improving and was also present before the vena cava ligation. He has developed no leg ulcers, dermatitis, thrombophlebitis or varicosities following discharge from the hospital. Five months post-operatively he returned to full-time employment with the restriction that he not do much lifting. His knees tire after working four to five hours.

TABLE NO. 1

INDICATIONS PRESENTED IN THE LITERATURE FOR
INFERIOR VENA CAVA LIGATION

1. Multiple pulmonary emboli
 - a. during anticoagulant therapy
 - b. without anticoagulant therapy
2. Massive infarction with obscure origin of the embolus
3. Descending thrombosis of the lower extremity above the inguinal ligament with embolus
4. Prophylactic during abdominal exploration for some primary condition
5. Accidental trauma to the inferior vena cava
6. Septic pelvic thrombophlebitis
7. Embolism in which anticoagulants were contraindicated
8. Phlegmasia, Cerulia, Dolens of Gregorre
9. To localize infection in the lower extremity
10. Pulmonary embolus associated with prostatic tenderness of presumably recent origin
11. As an adjunct to coagulation diathermy in the treatment of infiltrating bladder tumors
12. Ascending thrombosis not controlled by anticoagulants, with or without pulmonary emboli
13. One pulmonary embolus while on anticoagulant therapy

DISCUSSION

There are records of only these four inferior vena caval ligations found at the Medical College of Virginia, in spite of an active surgical service. No vena cava ligations have been performed at McGuire Veterans Administration Hospital in Richmond, Virginia.

The indications for ligation were similar. The four cases all had thrombophlebitis of the lower extremity, a pulmonary embolus, and progression of the thrombus in spite of anticoagulant therapy. Ligation at the level of the inferior vena cava was selected in three cases because of extension of the thrombus above the inguinal ligament and in the fourth case

because of extension of the thrombus into the inferior vena cava following common iliac ligation. The operation was performed as a life-saving procedure in each case. The extraperitoneal approach was used in all cases with no operative mortality. There has been no evidence of subsequent pulmonary emboli.

The part that vena caval ligation has to play in the morbidity in these cases is difficult to evaluate as they all had severe pre-existing thrombophlebitis of the lower extremities. The cases were followed from five to 33 months. All developed immediate postoperative edema which gradually improved. One case still has severe edema, two mild, and one no edema. Postoperative thrombophlebitis was a complication in two cases and has been almost disabling in one of them. Another case is partially restricted in his activities because of leg pain on walking and increased edema on standing for long periods. He also has loss of libido due to pain which is an unusual complaint following vena caval ligation. Two cases have returned to full employment with few and no complaints.

SUMMARY

1. The recent literature on thromboembolic disease has been briefly summarized.
2. Four additional cases of inferior vena caval ligation have been presented and discussed.

CONCLUSIONS

1. Thromboembolic disease remains a serious surgical problem.
2. Unless the future medical literature gives more conclusive evidence that inferior vena cava ligation carries a relatively low morbidity, surgeons will continue to be reluctant to use this effective, safe, prophylactic procedure in thromboembolic disease in spite of the high mortality which accompanies it.

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Monthly Report of Bureau of Communicable Disease Control

	June 1956	June 1955	Jan.- June 1956	Jan.- June 1955
Brucellosis -----	4	5	11	15
Diphtheria -----	0	2	21	13
Infectious Hepatitis -----	33	58	285	746
Measles -----	3601	666	22446	3313
Meningococcal Infections ----	7	8	55	62
Meningitis (Other) -----	10	--	58	--
Poliomyelitis -----	16	13	22	37
Rabies (In Animals) -----	17	18	197	230
Rocky Mt. Spotted Fever ----	8	7	13	16
Streptococcal Infections -----	480	299	3709	4454
Tularemia -----	6	1	12	7
Typhoid Fever -----	8	1	21	17

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Interaction Between Patients and Employees

A striking feature of most mental patients is their lack of a feeling of individual power. Thus one of the crucial problems peculiar to the mental hospital culture is how to offer opportunities for the patient to gain some measure of healthy power at the same time that we are managing his life. A regimen is therapeutic in itself up to a certain point and we don't want to overmanage so we try through therapy to restore the patient's confidence in his ability to take care of himself.

In spite of this realistic goal, a high percentage of the patients in mental hospitals have been confined for years. Mainly this seems to be the case because the nature of mental illnesses are such that people with these disorders cannot help but resist corrective experiences. Unless there are adequate facilities and stimulating personnel, these young people lapse into a condition of personified hopelessness and defeat.

This raises the question of whether or not the environment of the mental hospital and personnel might aggravate the disorders in some cases by unwittingly discouraging initiative and individuality. It is understandable that we might, since we work in confining situations with extremely tense, hostile, fearful, and guilt-laden people and it would require personalities of saints not to respond with some of these feelings ourselves. These negative feelings are reinforced since there are so few opportunities for the patients and employees to cooperate on concrete projects that they don't often arrive at that feeling of comradeship which would reduce the tension in both parties.

How can we order things to lower tension and bring about more respect between patients and em-

ployees?

It is a common observation that the occupational therapist who sees a patient from a closed ward do something constructive holds out more hope and stimulates the patient more positively than the person who deals only with his wearing behavior on the ward. This undoubtedly helps patients immensely, but the idea needs to be extended into more productive and useful work.

Encouraging attendants to take more of an active part in the patients' activities helps to bridge the gap between patients and employees. This sort of thing is going to happen informally anyway. The advantage of formally approving it will be to remove any guilt that the attendant might feel over spending a lot of his time in recreational and conversational activities instead of making his ward a showplace of cleanliness and order. If he moves closer to this patient through non-threatening stimuli, the chances are they will do a lot for him in keeping his place in order.

Perhaps a little more personal approach is through group therapy. This approach economizes on the employee's time and gives more patients an avenue of self-expression. In such a situation patients can see right before their eyes how they affect others and in turn how others affect them. Each patient has to be assigned to a group consummate with his capacity for insight, but it is assumed that every patient can improve on his contact possibilities with others. When he does improve in this area of his living he achieves more healthy power. If more of the personnel could somehow participate in group therapy, there might come about a better understanding between patients and personnel. In the hospital where the writer works this participation has been extended through the nursing service and so far this appears to have had a positive educational effect on the nurses as well as the patients.

Contributed by HERMAN S. SMITH, *Psychologist, De-Jarnette State Sanatorium, Staunton, Virginia.*

MACK I. SHANHOLTZ, M.D.
State Health Commissioner of Virginia

Typhoid Fever

The history of the gradual decline of typhoid fever is closely associated with the elimination of dissemination of the bacteria through public water supplies. Improvement began in the 80's and 90's as one city after another instituted methods of purification of water. The introduction of chlorination came around 1908. Standard measures of water safety including sources of supply, treatment and purification, safeguarding the distribution system, and both chemical and bacteriological analyses, were gradually extended from cities to smaller towns and villages by state health departments through their divisions of sanitary engineering. The closure of surface toilets and the extension of water-borne sewage systems played an important part in prevention of dissemination. Today, to prevent streams, ponds, and lakes from becoming open sewers through discharge of raw sewage into them, the installation of sewage treatment plants is being required.

Milk was very prominently associated with the spread of the disease around the turn of the century. During the past fifty years standards of cleanliness have been established and enforced, production and distribution have been brought under sanitary supervision, pasteurization has been increased until now more than 95 per cent of the supplies in this country are pasteurized before they are delivered to the consumer. Similar improvements in the protection of milk products have been effected.

There are other factors that have contributed to the reduction in the spread of typhoid. The fly population has decreased as the horse has been superseded by motor cars, trucks, and tractors and measures have been taken to prevent fly breeding. Screening and air-conditioning prevent flies entering homes and buildings. The increased use of hospitals for the treatment of cases has reduced the frequency of contact infection. Education of the public and better economic conditions which provide better living conditions have reduced chances of spread. The use of prophylactic vaccine has proved helpful.

Prompt diagnosis and treatment of patients, tracing the source of infection, and the discovery and supervision of carriers are important measures in preventing the spread of typhoid today. The reser-

voir of infection with typhoid is in the carriers in the population. The convalescent carrier is the one who continues to discharge typhoid bacilli in his stools for a few weeks to several months after the onset of the disease. A chronic carrier is a person who has not suffered from typhoid fever within the previous 12 months and who discharges the organisms in his feces. Those who harbor the organisms without having had a clinically recognized case are called healthy carriers. Older persons are more likely to become carriers than children. Chloramphenicol has not proved helpful in destroying the bacilli in carriers. Cholecystectomy will eradicate the carrier state in about 90 per cent of cases. The minimum criteria for release from carrier supervision are:

1. For temporary carriers a minimum of 3 consecutive negative cultures taken at least 10 days after cessation of antibiotic therapy.
2. For permanent carriers a minimum of 6 consecutive negative cultures taken at least one month apart, the last two of which must be validated by collection of the specimen in a hospital or otherwise directly supervised. All specimens are to be collected at least 10 days after cessation of antibiotic therapy. In releasing former biliary carriers the final 2 stool cultures may be validated by the giving of lycopodium or negative bile cultures may be substituted for such validation.

In Virginia the cases of typhoid fever reported during the past five years have been as follows:

1951	1952	1953	1954	1955
61	77	54	70	48

Through the third week of June 1956, there have been 21 cases of typhoid reported. Over the state there are 95 carriers under supervision. This number is less than in past years and is being decreased through deaths more rapidly than it is being replaced by new carriers arising from cases. The disease is not eradicated; the susceptibility of the general public remains unchanged. Any break in the barriers of protection that have been set up will result in the reappearance of the disease in areas involved.

National Medical Civil Defense Conference

It was Sir Winston Churchill who, while pointing out the needs for an effective system of civil defense, said "It presents itself today in its noblest aspect, namely, the Christian duty of helping fellow mortals in distress and no city, no family, nor any honorable man or woman can repudiate this duty and accept from others which they are not prepared to fit themselves to render in return."

With this thought in mind, the Fourth Annual National Medical Civil Defense Conference was held in Chicago on June 9. The program was designed to acquaint members of the medical profession, as well as other medical and health groups, with their responsibilities and duties in the management and care of mass casualties.

The seriousness of America's plight was emphasized, and it was brought out that approximately 170 industrial centers are prime targets. Our Nation is quite vulnerable to air attack and it is estimated that 65 to 70 per cent of our industry could be destroyed almost at once.

It was further brought out that Russia's military potential by 1959 is tremendous, and the very survival of this country depends upon today's planning and preparation. It is the medical profession which will be blamed if we cannot adequately handle mass casualties. The time has arrived for physicians to adjust to new responsibilities and new jobs during emergencies.

Discussed at length were the relative indifference and lack of imaginative leadership which are handicapping civil defense efforts. This is particularly true, and tragic, in many local communities. It should be clearly pointed out that civil defense is not a military mission.

The Honorable Chet Holifield, United States Congressman from California and Chairman of the Subcommittee on Military Operations, voiced the concern of Congress over the fact that this country can count on only 139,000 physicians during an emergency. He stressed that today's atomic and hydrogen weapons are the equivalent of millions of pounds of TNT as compared to thousands in the recent past. Under such conditions the tasks of the medical profession would be sorting (casualties) control and concentration of personnel.

The Canadian concept for meeting disaster was given particular attention. While emphasis is placed on community planning, there are certain basic concepts which apply to all. These concepts are:

1. Basic uniformity of organization and pattern of operation.
2. Flexibility of arrangements.
3. Mobility.
4. Hospitals as centers of casualty services.
5. First Aid should not delay first treatment.
6. Acceptance of axiom "do best for most". (This pertains to proper screening of casualties.)

In Canada, casualty services are divided into the following two categories:

1. Primary treatment services.
 - (a) Casualty collecting units.
 - (b) Advance treatment centers set up as close as possible to the disaster area.
2. Hospitals.
 - (a) Existing.
 - (b) Improvised.

The need for leadership was continually stressed. Brought out was the fact that panic can be forestalled by training, communication and leadership. Strong leaders are needed to tell people what to do and then set the example by doing. Mentioned was the fact that apathy is found when one does not know what to do. It is then easy to deny the seriousness of the situation. This is where leadership comes into the picture.

(EDITOR'S NOTE: A perfect example of the apathy and resistance of the general public to civil defense preparations was demonstrated in Richmond on June 20. A preparedness drill for emergency air attack was carried out and the public requested to cooperate with civil defense authorities by taking cover when the sirens sounded and remaining off the streets until the "all clear" was given. As it turned out, Richmond citizens went about their business as usual, ignoring the "alert" almost completely. Authorities announced that a more vigorous educational program would be undertaken.)

The professional team approach in disaster planning was the subject of much discussion. Representatives from the medical, dental, nursing, and veterinary professions discussed various ways of cooperating during emergencies. For example, it was pointed out that veterinarians are trained in food inspection, sanitation problems, etc. They

would be particularly helpful in animal disease control.

Those attending the Conference were privileged to view four selected films of great interest and value to all physicians. It would be highly desirable for all medical societies to arrange a showing of these films to their members.

1. INITIAL SURGERY OF ABDOMINAL WOUNDS (Color—29 Minutes) This film illustrates surgical management of abdominal injuries, including exploration, drainage and closure.
2. DEBRIDEMENT, WOUNDS OF THE EXTREMITIES (Color—33 Minutes) This film shows initial debridement, including thorough cleansing of the area in preparation for surgery; extensive longitudinal incisions in the skin and fascia to expose the deeper portion of wound; cutting away of all devitalized muscle, fascia and subcutaneous tissue, conservative trimming of skin edges; and ligation of bleeding points of hemostasis. Delayed primary closure of suture of application of skin graft is also illustrated.

3. OPERATION BLOWUP (Color—22 Minutes)
This is a depiction on 16 millimeter color film of one thousand simulated casualties resulting from an atomic airdrop on a regiment in reserve. Illustrated in this film is the function of sorting stations, a clearing station, and a mobile army surgical hospital. The casualties are sorted, receiving their emergency medical treatment at the sorting stations, and are then evacuated by all available means to the clearing station, where further sorting for the establishment of priorities for treatment is accomplished.
4. A METHOD OF TEACHING COMBAT SURGERY (20 Minutes) This is a depiction of a laboratory method for teaching debridement of missile wounds resulting from warfare. Laboratory animals (goats) are wounded by standard Army weapons and are then subjected to the necessary surgical procedures in a mobile army surgical hospital utilized as a laboratory in the field.

R.I.H

New Tranquilizing Drugs

Some 35,000,000 prescriptions will be written this year for tranquilizing drugs, the latest weapon of the drug manufacturing industry against mental illness, the nation's No. 1 health problem.

Although so widely talked about that they are figuring in radio and television jokes and although they have been subjected to indiscriminate use in scattered areas of the country—Hollywood, for one—such incidents can not over-shadow the real contributions of this valuable group of therapeutic agents to the nation's health, according to Health News Institute, 342 Madison Ave., New York, the information agency for the health field.

In the hands of physicians, these new products

of pharmaceutical research are finding an increasing number of medical uses as a therapy for the over-tired housewife and the tension-ridden business man who might otherwise become a candidate to fill a bed in a mental institution. In fact, Medimetric Institute, Inc., New York pharmaceutical market research firm, reports that 3 of the 10 compounds prescribed most frequently by physicians in 1955 were tranquilizers.

Virtually unknown in the United States two years ago, the tranquilizers have had wide use in mental hospitals. They have enabled many hospital patients to benefit from psychotherapy for the first time.

Oral Narcotic Prescription Amendment

Section 54-496 (1) (a). The Board of Pharmacy may, by regulation, not inconsistent with the regulations promulgated by the United States Commissioner of Narcotics, find and designate narcotic drugs and compounds possessing little addiction liability. In lieu of a written prescription for such narcotic drugs or compounds so designated by the Board of Pharmacy, an oral prescription may be issued by a practitioner licensed by law to prescribe narcotic drugs and compounds, and lawfully practicing his profession.

In issuing an oral prescription, the practitioner shall furnish the pharmacist with the same information as is required by law in case of a written prescription for narcotic drugs and compounds, except for the written signature of the prescriber. The pharmacist who fills such prescription shall be required to comply with all the provisions of law relating to narcotic prescriptions, as required by this article.

REGULATION 22(a)

Pursuant to the Code of Virginia, 1950 (Uniform Narcotic Act, as amended 1956) the following narcotic drugs and compounds of narcotic drugs are hereby found and designated to possess relatively little addiction liability, and may be prescribed by oral prescription. This regulation is to take effect July 1st, 1956.

a. Any isoquinoline alkaloid of opium or any salt of any such isoquinoline alkaloid, alone or in combination with other active, non-narcotic medicinal ingredients.

b. Apomorphine or any salt thereof, alone or in combination with other active, non-narcotic medicinal ingredients.

c. N-allyl-normorphine (Nalorphine, Nalline) or any salt thereof, alone or in combination with other active, non-narcotic medicinal ingredients.

d. Any compound consisting of methylmorphine (codeine) or of any salt thereof with an equal or greater quantity of any isoquinoline opium alkaloid or salt thereof, where the content of methylmorphine or any salt thereof does not exceed eight grains per fluid ounce or one grain per dosage unit of the compound.

e. Any compound consisting of methylmorphine

(codeine) or of any salt thereof with one or more active, non-narcotic ingredients in recognized therapeutic amounts, where the content of methylmorphine or salt thereof does not exceed eight grains per fluid ounce or one grain per dosage unit of the compound.

f. Any compound consisting of dihydrocodeinone (Hydrocodone, Dicodid, Hycodan) or of any salt thereof with a four-fold or greater quantity of any isoquinoline opium alkaloid or salt thereof, where the content of dihydrocodeinone or any salt thereof does not exceed one and one-third grains per fluid ounce or one-sixth grain per dosage unit of the compound.

g. Any compound consisting of dihydrocodeinone (Hydrocodone, Dicodid, Hycodan) or any salt thereof with one or more active, non-narcotic ingredients in recognized therapeutic amounts, where the content of dihydrocodeinone or of any salt thereof does not exceed one and one-third grains per fluid ounce or one-sixth grain per dosage unit of the compound.

h. Any compound consisting of dihydrohydroxycodeinone (Oxycodone, Eucodal) or any salt thereof with one or more active, non-narcotic ingredients in recognized therapeutic amounts, where the content of dihydrohydroxycodeinone or of any salt thereof does not exceed two-thirds grains per fluid ounce or one-twelfth grain per dosage unit of the compound.

i. Any compound consisting of ethylmorphine (Dionin) or of any salt thereof with one or more active, non-narcotic ingredients in recognized therapeutic amounts, where the content of ethylmorphine or any salt thereof does not exceed one and one-third grains per fluid ounce or one-sixth grain per dosage unit of the compound.

j. In addition to the requirements of law, the pharmacist filling a prescription for any compound permitted by this regulation, shall, in addition to signing the prescription, affix the term "orally prescribed" on the face of the prescription.

The Jamestown Festival

Men who wield axes and adzes in the manner of Captain John Smith's colonists are working side by side with diesel-powered earth-movers to create the setting for the Jamestown Festival of 1957—the celebration of the nation's 350th birthday.

The Festival, being developed by State and Fed-

eral Commissions, will commemorate the beginning of the first successful and permanent English colony in the New World, at Jamestown in 1607. The British government is joining in observance of this milestone for world-wide English-speaking civilization.

The Navy Department has just announced that it will sponsor an International Naval Review June 8-17, 1957, when warships of many nations will concentrate in Hampton Roads. This huge regatta at Norfolk and Newport News will be part of the State-wide observance by communities as far west as Roanoke.

Visitors to the Jamestown-Williamsburg-Yorktown area—center of the Festival—are seeing the preparations this summer for the opening April 1. From all sources, about \$25,000,000 is being spent in this compact historic locale. Some of the popular attractions whose progress can be seen are:

(1) The Fort of 1607. Construction began in mid-March on this log-palisaded replica facing the James River. The "bulwarks" on which cannon will be mounted have risen. Building of the thatched, half-timbered church and houses within the Fort is now beginning.

(2) The Glasshouse of 1608. This reproduction of the first glass factory, and probably the first highly skilled industry in English America, will be ready for test operation in October. Furnaces are being installed in the great hand-hewn buildings, where blowers will melt glass and fashion souvenirs.

(3) The Three Ships of 1607. These full-size replicas (100 tons, 40 tons and 20 tons) are under construction at West Norfolk, not in the Jamestown area. The largest, which visitors will board, is 25 per cent complete. The launching is set for about December 10, 1956.

The Department of the Interior's scenic Colonial Parkway, which will connect Jamestown, Williamsburg and Yorktown for the first time, is well on schedule toward completion by January 1, 1957. Two new Visitor Centers, at Jamestown and Yorktown, are under way and are due for completion February 1.

The new \$8,500,000 Information Center area of Colonial Williamsburg, Inc., was begun last winter. It includes a motor hotel, a cafeteria and two theatres that will show interpretive films now being produced. The restoration is also opening a new art gallery and new exhibition buildings in the town.

Work has begun at Glasshouse Point near Jamestown on Jamestown Festival Park, a development financed by the State of Virginia and its 350th Anniversary Commission and by contributions from private donors in Virginia and in the nation. The cost of the permanent Park will be \$1,500,000.

In the Park will be a spacious Reception Center, a restaurant, an Old World Pavilion, a New World Pavilion, a mall, an arcade and a pylon—all in a wilderness setting that will be beautifully landscaped. Adjoining it will be a 1,000-car parking lot, one of several lots being constructed. In a grove nearby will be Powhatan's Lodge, an Indian exhibit.

The British government plans "an elaborate exhibition" in the Old World Pavilion on the development of the English-speaking family of nations and the evolution of the British Commonwealth. The State of Virginia will have an exhibition on Virginia's contribution in the New World Pavilion.

At one end of the Park will be the reconstruction of James Fort, facing the river, and in the river will be moored the Three Ships.

A glimpse into what visitors can see at one of the exhibitions was offered to a large gathering in a ceremony at the Glasshouse recently.

The modern hand-made glass industry and its union, the Flint Glass Workers of America, have formed the Jamestown Glasshouse Foundation, Inc., and have reconstructed the ancient glass factory in cooperation with the National Park Service, owner of the historic site.

Carl W. Gustkey, president of Imperial Glass Corporation, Bellaire, Ohio, who heads the foundation, lighted a fire during the annual meeting of the foundation in the first of the four furnaces to be reproduced and completed. Conrad L. Wirth, director of the National Park Service, took part in the ceremony.

The Glasshouse Foundation announced that the industry and union have raised \$100,000 and that the National Park Service had contributed the equivalent of \$52,000 more toward completion and future operation of the Glasshouse exhibition, beginning in April, 1957.

The remains of the original furnaces are a few yards from the reconstruction, and these, too, will be exhibited. Gustkey said that a staff of 12 glass blowers and other technicians will be maintained to demonstrate how glass was blown in the seventeenth century.

Book Announcements . . .

Books received for review are promptly acknowledged in this column. In most cases, reviews will be published shortly after the acknowledgment of receipt. However, we assume no obligation in return for the courtesy of those sending us same.

The Truth About Cancer. By CHARLES S. CAMERON, M.D., Medical and Scientific Director, American Cancer Society. Prentice-Hall, Inc., Englewood Cliffs, New Jersey. 1956 xix-268 pages. Illustrated. Price \$4.95.

Bellevue is My Home. By SALVATORE R. CUTOLO, M.D. With Arthur and Barbara Gelb. Doubleday & Company, Incorporated, Garden City, New York. 1956. 317 pages. Price \$4.00.

Laboratory Tests in Common Use. By SOLOMON GARB, M.D., Assistant Professor of Clinical Pharmacology, Cornell University College. Springer Publishing Company, Inc., New York. 1956. 160 pages. Price \$2.00.

The Rochester Regional Hospital Council. By LEONARD S. ROSENFELD, M.D., M.P.H., and HENRY B. MAKOVER, M.D., Published for The Commonwealth Fund by Harvard University Press, Cambridge, Mass. 1956. xii-204 pages. Price \$3.50.

Hunterdon Medical Center. The Story of One Approach to Rural Medical Care. By RAY E. TRUSSELL, M.D., M.P.H., Executive Officer of the Columbia University School of Public Health and Administrative Medicine. Published for The Commonwealth Fund by Harvard University Press, Cambridge, Mass. 1956. xxiii-236 pages. Illustrated. Price \$3.75.

A Dictionary of Dietetics. By RHODA ELLIS, Ph.D., Instructor of Foods and Nutrition, Department of Home Economics, Brooklyn College, New York. Philosophical Library, New York. 1956. 152 pages. Price \$6.00.

The Menninger Story. By WALKER WINSLOW. Doubleday & Company, Inc., Garden City, N. Y. 1956. 356 pages. Price \$5.00.

Handbook of Physical Therapy. By ROBERT SHESTACK, Ph.G.R.P., P.T.R., Technical Director, Department of Physical Therapy, Washington County Hospital, Hagerstown, Md., Director, Department of Physical Therapy, Kings Daughters Hospital, Martinsburg, W. Va.; etc. Springer Publishing Company, Inc., New York. 1956. xii-212 pages. Price \$4.25.

Histamine. Ciba Foundation Symposium Jointly with The Physiological Society and the British Pharmacological Society. In Honour of Sir Henry Dale, O.M., G.B.E., M.D., F.R.C.P., F.R.S. Editor for the Ciba Foundation, G. E. W. Wolstenholme, O.B.E., M.A., M.B., B.Ch., and Cecilia M. O'Connor, B.Sc. Little, Brown and Company, Boston. 1956. xvi-472 pages. Cloth. With 133 Illustrations. Price \$9.00.

Electrodiagnosis and Electromyography. Edited by SIDNEY LIGHT, M.D., Honorary Member, British Association of Physical Medicine, Danish Society of Physical Medicine, and the French National Society of Physical Medicine. Elizabeth Licht, Publisher, New Haven, Connecticut. 1956. xi-272 pages. Illustrated. Cloth. Price \$10.00.

A Doctor's Marital Guide for Patients. Written for those married and about to be married. By BERNARD R. GREENBLATT, B.S., M.D., Associate Attending, Obstetrics and Gynecology, Kings County Hospital, Brooklyn, N. Y., Clinical Instructor, Obstetrics and Gynecology, University of the State of New York, School of Medicine; etc. The Budlong Press, Chicago, Illinois. 1956. This booklet is available only through a physician. 88 pages. Patient Price \$1.50 Catholic edition available at same price.

Therapy of Fungus Diseases. An International Symposium. Edited by Thomas H. Sternberg, M.D., Professor of Medicine (Dermatology) and Assistant Dean for Postgraduate Medical Education. And Victor D. Newcomer, M.D., Associate Professor of Medicine (Dermatology). Presented June 23-25, 1955, by The Division of Dermatology, Department of Medicine, School of Medicine and Medical Extension, University Extension. University of California at Los Angeles. Little, Brown and Company, Boston. 1956. xxiii-337 pages. Illustrated. Price \$7.50.

This book consists of a series of abstracts sponsored by the Division of Dermatology at the University of California at Los Angeles. Since a good many of the bacterial diseases have been adequately controlled by antibacterial chemotherapy, much attention is being diverted to the management of fungus diseases—a long neglected sphere of medicine. An excellent introduction by Dr. Donald M. Pillsbury of Philadelphia outlines the advances that have been made in fungus disease research and avenues that are still to be investigated. The symposium, a compilation of recent therapeutic adventures in the management of superficial and deep fungus infections, includes the work of investigators from all parts of the globe. Of special interest to American investigators and clinicians alike is the work done with Nystatin (Mycostatin) in the control of conditions. This book is an excellent reference for all clinicians and should be on the book shelf of every dermatologist.

MARVIN A. GOLDINER, M.D.

Asclepiades. His Life and Writings. A Translation of Cocchi's Life of Asclepiades and Gumpert's Fragments of Asclepiades. By ROBERT MONTRAVILLE GREEN, M.D., Emeritus Professor of Anatomy, Harvard Medical School, Boston, Mass. Elizabeth Licht, Publisher, New Haven, Conn. 1955. ix-167 pages. Cloth. Price \$6.00.

Asclepiades of Bithynia was one of the most famous and successful Greek physicians who practiced in Rome, two centuries before Galen. Adopting the atomic system of Democritus and Epicurus, he taught that the elements of living bodies are the same corpuscles which constitute all perceptible objects. From their combination and attachment passages arise, which according to the size, form, position, and arrangement of the corpuscles, are themselves wider or narrower, or shaped in one way or another. Health is when the corpuscles pass through the passages in an equal manner and intercepted by no impediments; disease is when that relation, which in a healthy state subsists between the passages and the moving corpuscles, is impaired and impediments are present which disturb their equal motion; cure is when that relation, which is requisite for the healthy state, is restored by treatment so that the motion of the corpuscles can proceed according to the laws of health.

In spite of the purely speculative character of his doctrine, and the undynamic interpretation of all vital phenomena by the laws of matter and motion alone, Asclepiades made valuable contributions to medical assistance, the roots of which this reviewer is tempted to discover in the kind and friendly nature of the Epicureans, frequently misinterpreted as indulging in crude pleasure, but more correctly called by some premature Quakers and compared by others with Tolstoyans. Asclepiades introduced exercise, massage, various types of baths and even music the

chief value of which he found in mental diseases. From his teaching sprang one of the three ancient schools of medical thought, the so-called Methodists. One of his pupils, Themison of Laodicean, abandoned the search for more obscure causes and observed in the obvious circumstances of maladies the particular conditions common to many, so that he reduced them to a certain few and typical varieties, and gave the name of method to his manner of investigating the manifest and essential resemblances; whence those who followed him were called Methodists. The adherents of the school believed in fast, pleasant and safe remedies (*cito, tuto, jucunde*). This belief was strengthened by their over-simplification which led them to recognize no more than two classes of diseases, those resulting from the *laxity* and those resulting from the *stricture* of the hypothetical passages or "pores" through which the corpuscles pass; astringent remedies were to be prescribed in the former, relaxing ones in the latter.

The medical historian is able to trace the vestiges of this school of thought up to the nineteenth century and early American medicine. This alone recommends the book to American medical readers. Moreover, the book conveys the first English translation of the extant writings of Asclepiades, collected and published in 1794 by the German, Christian Gottlieb Gumpert, and a new translation of the "Life of Asclepiades" by the eighteenth century Italian anatomist, Antonio Cocchi.

WALTHER RIESE, M.D.

Let's Reminisce!

At the annual meeting of The Medical Society of Virginia in 1875 Dr. Henry Latham introduced the following resolution, which was adopted: "*Resolved*, That in view of the increased labors of the Recording Secretary, and the constant zeal which he manifests in the growth and success of this Society, his salary be increased to three hundred dollars annually."

The treasurer reported amount received during the year as \$1,088.42, with expenses of \$1,026.07, leaving a balance of \$62.35. There were eighty-eight Fellows in attendance at this meeting.

Dr. W. F. Barr called the attention of the Society to a *new* preparation of alum and iron manufactured in Washington County, from the waters of "Seven Springs". It is beneficial in dyspepsia, chronic bronchitis, neuralgia, rheumatism, nervous and sick headaches, chronic diarrhea and constipation, leucorrhoea, amenorrhoea, dysmenorrhoea, menorrhagia, anæmia, chlorosis, chorea diseases following intermittent fever and in all cases in which it is desired to improve the impoverished condition of the blood. It had been endorsed by the Abingdon Academy of Medicine and he hoped the fellows of the Society and physicians generally would give it a fair trial.

A New Society Headquarters Building?

"A CARPENTER is no better than his tools." It is true that a job may be done with poor or inadequate tools but certainly not the *best possible* job. A state medical society is in somewhat the same position as the carpenter . . . it can do a passable job with just a few tools; it could do a much better job, and truly fulfill its purpose, if it had the proper facilities and tools at its command.

During recent years our Society has grown by leaps and bounds, not only in numbers but also in its activities. Its committees are busier—this year will set a record for meetings held at Society Headquarters. Committees need work shops—places to meet and plan—places to work and mold—places to review and rehearse. Such facilities are not now available in our present building.

Each year the Society sponsors several large conferences: the County Society Officers Conference, the conference on medically indigent, conference on problems of the aging and so on. The Woman's Auxiliary holds its Board meetings and other functions at the Headquarters and attendance will often exceed 45-50 members. An auditorium or meeting room is therefore needed—large enough to comfortably seat 100-150 persons theatre-style. Built-in amplification and projection facilities would make it possible to properly present any type of program. In addition to scientific meetings, such space would lend itself perfectly to educational and promotional undertakings such as public relations gatherings and AMEF committee meetings. Then, too, it would permit entertainment when desired.

State medical societies are finding that luncheon meetings are becoming more popular all the time. Committees work better with a good meal, and experience shows that attendance is increased. Our present building has no facilities for luncheon meetings. An ideal arrangement would provide for a dining room to accommodate 25 or more persons, and a kitchen with stove, refrigerator and cabinets that would permit the serving of a variety of meals.

Our present building is not used nearly as much as it should be because it is situated in a congested area. Physicians say that they would stop if a parking space were available. Our lot at the rear of the building accommodates five cars, if properly parked. We need space for the parking of 50 cars as a minimum.

Our State office receives an unbelievable number of calls daily for information of one sort or another. Adequate and convenient facilities are needed for our reference library.

I believe that a state medical society should be the "hub" of all medical organizational activity within the state. We should maintain close liaison with the health councils, heart associations, cancer societies, tuberculosis organizations, etc.—especially those controlled by lay people. We should have an active role in advising and assisting any lay group with a medical objective as a part of its program and which operates on the state level. A well-planned serviceable building located in a Richmond area where parking would not be an acute problem would invite these organizations to utilize our facilities, thus providing us with the opportunity to know their needs and to lend our counsel and advice when needed.

Some of our sister states—Tennessee, North Carolina, Mississippi—and others such as Iowa and Wisconsin have erected new headquarters at great effort and sacrifice. The money in most instances has been borrowed—a procedure they believed justified by the urgent need of a serviceable work shop. We do not need to do this. Our Society has accumulated sufficient money to purchase the property and erect a building to meet our requirements without embarrassing our financial structure in any respect.

In summary, I believe that we should seriously consider the erection of a new headquarters building in one of the less congested sections of Richmond that will permit ample parking space. In addition to offices for our executives we should provide on a rental basis office space for kindred organizations. The new structure should contain an auditorium for meetings of large groups, dining and food preparation areas and space for convenient cataloging and storing of reference materials.

A building of this type, even on today's market, could be erected at a cost that would not in any manner jeopardize our financial structure. I am confident that the investment would prove a wise one and would lend much to the advancement of the future work of the Society.


President

Your Virginia Medical Monthly

THE EDITORIAL BOARD of the Virginia Medical Monthly hopes the members of The Medical Society of Virginia have noticed the changes which have been made in their journal during the past year. This "new look" has resulted, in part, from suggestions made at the meeting of the State Medical Journal Conference at Chicago last November. Other changes were the result of happy inspirations on the part of our very efficient Managing Editor, Miss E. Spencer Watkins. Still other recommendations were made by members of the Editorial Board.

We trust the membership generally approve of these changes. If you have any suggestions please send them in. We do not promise to adopt all of them but we will give each idea individual consideration.

There has been one disturbing development during the past few years. We are not receiving as many desirable original articles for publication as formerly. In previous years, as the official organ of the Society, much of the material published in the Monthly was presented originally at the annual meeting. Now there are fewer papers read at the meeting. This has been due, in part, to a change in the type of program presented at medical meetings generally during recent years. Instead of having a number of formal prepared essays on various subjects of general interest, there has been an increasing tendency at the Fall meeting to have round table and panel discussions. This, no doubt, has proved valuable to the listener but it has lessened the number of papers subsequently turned over to the Virginia Medical Monthly for publication.

To remedy this shortage of worth-while papers the members of The Medical Society of Virginia are urged to submit original articles they have prepared recently on subjects of general interest or, better still, we wish that they would prepare a fresh presentation on the subject with which they are most familiar. By doing this they not only will learn more about the topic under discussion but they also will aid the Virginia Medical Monthly by providing more and better material for publication.

H.J.W.

Cardiac Arrest

RECENTLY IT WAS estimated that some five thousand cases of cardiac arrest occur annually in the United States among ten million operations. Probably this figure does not include an additional large number of cases in which cardiorespiratory alterations occurring during operation contribute to death during the early postoperative period.

It has been said that cardiac arrest (either standstill or ventricular fibrillation) may occur in any patient undergoing any type of operation by any surgeon under any anesthesia administered by any anesthetist. However, one should not conclude that this catastrophic complication is an event which occurs suddenly by chance. Our failure to piece together the etiologic factors in all instances reflects our basic lack of understanding, an inability to measure certain physiologic variables, or failure on the part of the surgeon and anesthetist to observe and comprehend the events leading up to the cardiac emergency.

The factors contributing to cardiac arrest are manifold and are often operating

simultaneously. The incidence of cardiac arrest is higher in the older age group and in patients with heart disease. Nevertheless, the good risk patient undergoing a relatively simple operation is not immune. Undoubtedly the prevalent use of anesthetics and drugs which produce apnea has contributed to the apparent increased incidence of cardiac arrest. Without condemning the trend toward "balanced" anesthesia in which many anesthetic agents and drugs are employed it is safe to say that the practical application of various devices for monitoring the physiologic state of the patient has not kept pace with the increasing complexity of anesthesia.

The audible, if not indeed visual, registration of heart beat and the measurement of tidal ventilation can be supplied rather simply as valuable guides to the anesthetist to safeguard the patient. Continuous recordings of arterial blood pressure, oxygen saturation and carbon dioxide tension, and blood volume and cardiac output determinations provide valuable data for research problems and specialized endeavors, but cannot at present be adapted for routine use. On the other hand, electroencephalography in a simplified form is available as a sensitive tool for the detection of serious hypoxia, hypercapnia, shock, and increasing depth of anesthesia; and its widespread adoption would offer a tremendous potential for the safe conduct of patients through surgery. Although the alteration in the brain wave pattern does not allow a specific interpretation, the change signals a warning that all is not well and the cause can be sought.

If proper precautions are taken to avoid hypoxia and hypercapnia and blood loss is adequately replaced, cardiac arrest will rarely, if ever, be encountered in the lightly anesthetized patient with a normal heart. A low arterial oxygen saturation or decreased coronary blood flow from any cause tends to produce hypoxia of the myocardium and predisposes to cardiac arrest and arrhythmias. In broader terms a marked reduction in cardiac output from any cause whether due to the direct depressing action of anesthetic agents and drugs on the myocardium, a sudden reduction in blood volume or peripheral vasodilatation, sets the stage for cardiac arrest.

It is often stated that light stages of anesthesia predispose to sudden cardiac arrest. This is true only when there also is hypoxia and hypercapnia to sensitize the myocardium to vagal reflexes unsuppressed in light anesthesia. Deep anesthesia with cardiac, vasomotor and respiratory depression is far more likely to initiate cardiac arrest than is light anesthesia. Vagal reflexes originating in areas such as the tracheo-bronchial tree, the hilum of the lung, the mesentery and carotid sinus are undoubtedly important in the production of cardiac arrest. However, when the myocardium is well oxygenated and the pH of the blood normal, even strong vagal reflexes rarely produce clinically manifest changes in cardiac function. Drugs such as atropine and scopolamine which block these reflexes are of great value in the prevention of cardiac arrest and should be administered to most patients preoperatively and certainly be available for instant use during the course of the anesthesia. A brief period of bradycardia usually precedes cardiac arrest and signals the need for vagolytic drugs. On the other hand the blood pressure may be temporarily sustained by hypoxia or hypercapnia so that the deterioration of the circulation is not immediately appreciated.

Recent investigative work has emphasized the preponderant influence of hypercapnia in potentiating the vagal reflexes on the heart. This effect is thought to be brought about by the lowering of blood pH with increasing carbon dioxide tension which inhibits the cholinesterase destruction of acetylcholine. The rapidity with which alterations in blood pH can occur is emphasized by consideration of the fact that one minute of breath holding in the resting state will cause the pH to drop from 7.4 to 7.3. A second dramatic effect of elevated carbon dioxide tension is the posthypercapnic phenomenon in which a marked and sudden hypotension may occur as the result of the rapid return of pH towards normal. Experimentally this may be followed by ven-

tricular fibrillation. The prevention of hypercapnia implies an unobstructed airway and adequate pulmonary ventilation, effected when necessary by "active bagging". For long cases, particularly when the services of the anesthetist are required away from the head of the table, a mechanical respirator offers a tremendous advantage.

As prophylaxis against cardiac arrest the surgeon's attention should be directed preoperatively to the correction of anemia, the restoration of blood volume and electrolyte balance, the control of sepsis and evaluation of the patient's cardiac status. The cardiovascular collapse and subsequent cardiac arrest which follows the anesthetization of the patient with intestinal obstruction who has been inadequately prepared for surgery is a not uncommon occurrence.

Greatest emphasis should be placed on the prevention rather than the treatment of cardiac arrest. Nevertheless the failure of the surgeon to attempt cardiac resuscitation in the suitable situation must be classified as malpractice. For this reason a well planned protocol of action should be clearly fixed in each surgeon's mind and he should be adequately rehearsed in its execution. A delay of one or more minutes may cost the patient his life or his brain. If possible, practice in cardiac resuscitation should be obtained in the animal laboratory where the effectiveness of the surgeon's efforts can be clearly appraised. Where this is not possible, practice sessions in the postmortem room should be substituted. A candid analysis of each clinical case occurring on the surgical service will provide the stimulus for adequate future safeguards against repetition of mistakes.

LEWIS H. BOSHER, JR.

Society Proceedings

Giles County Physicians Meet.

The Annual Medical meeting of the Giles County Medical Society and the Staff of the Giles Memorial Hospital was held at Mountain Lake Hotel, June 14th. One hundred and twenty practicing physicians were in attendance and enjoyed a fine dinner and the program. Dr. George T. Pack, New York City, showed a film and slides of extensive surgical work being done in New York in cancer cases. Drs. Reno Porter and Gordon Henningar, Medical College of Virginia, gave a review of some clinical aspects of medicine relative to certain diseases.

The Washington County Medical Society

Closed out its most successful year of operation since the Society was reactivated in 1949. As is the usual practice, the final meeting of the year was held as Ladies' Night at the Martha Washington Inn, Abingdon, Virginia, on the evening of June 5th. An excellent steak dinner was served and favors were presented to all the ladies. A total of thirty-nine attended the dinner.

During the past year the Society was under the very able leadership of Dr. Catherine W. R. Smith, President. As a token of appreciation for her able

leadership throughout the year, the Society presented Dr. Smith with a going-away gift. Dr. Smith plans to spend several months in Europe this summer with friends.

At this meeting officers for the coming year were elected. Dr. Jack Wycoff, Abingdon, President; Dr. S. E. Miller, Abingdon, Vice-President; Dr. James M. Suter, Bristol, Secretary-Treasurer.

The Washington County Medical Society meets on the first Tuesday of each month from September through June at the Martha Washington Inn, Abingdon, Virginia, at 6:00 P.M. This is a dinner meeting. An invitation is cordially extended to any physician to meet with the Medical Society if he is in Abingdon at that time.

JAMES M. SUTER, M.D.
Secretary-Treasurer

Lynchburg Academy of Medicine.

Dr. Joseph W. Houck has been installed as president of the Academy, succeeding Dr. A. D. F. White. Other officers elected are Dr. J. E. Haynsworth, president-elect; Dr. George B. Craddock, vice-president; and Drs. Phillip R. Bryan and Robert L. Morrison, members of the board of trustees.

Current Currents

1956 COUNTY SOCIETY OFFICERS' CONFERENCE of The Medical Society of Virginia will be held on September 15 at Lynchburg's Hotel Virginian. This year's program is, without doubt, one of the most informative ever arranged, and features nationally known speakers with messages of vital importance to every physician.

For example, everyone has heard of the International Labor Organization (ILO)—perhaps even read a news release or two concerning its activities. Now, at last, State and County Society officers and committee chairmen, among others, will learn first hand just what goes on in this "breeding ground of international socialistic legislation". The Conference is indeed fortunate to have secured Mr. William McGrath, prominent Cincinnati business man and Employer's Delegate to the ILO, as one of its featured speakers.

That isn't all! Just take a look at some of the other speakers participating on the program:

Chuck Davey—former contender for the welterweight boxing crown and now well known in insurance circles.

John O. Moore—Director, Automotive Crash Injury Research Project, Cornell University Medical College.

Mason Connell—representing Health Insurance Council.

Pressing national legislation will be discussed by a staff member of the Washington Office of the AMA, and a special session will be devoted to problems of component medical societies.

This is a meeting that cannot be passed up. Here is information which every physician should have. Make sure that your component society is well represented.

CONGRESS has approved a record appropriation of \$170.4 million for medical research work of the National Institutes of Health. The total is estimated at 80% more than the research programs had to spend during fiscal year 1955-56.

	<i>Fiscal 1956</i> (Ended June 30, '56)	<i>Fiscal 1957</i> (July 1, '56- June 30, '57)
<i>Research Appropriations:</i>		
National Cancer Institute	\$24,828,000	\$48,400,000
Mental Health Activities	18,000,000	35,100,000
National Heart Institute	18,778,000	33,300,000
Arthritis & Metabolic Diseases	10,740,000	15,800,000
Neurology & Blindness	9,861,000	18,600,000
Allergy & Infectious Diseases	7,580,000	13,200,000
Dental Health Activities	2,136,000	6,026,000

AMA HOUSE OF DELEGATES WRAP-UP: The House approved the report of the Committee to Review the Functions of the *Joint Commission on Accreditation of Hospitals*. The reports contained 17 conclusions which included the following:

1. Accreditation of hospitals should be continued.
2. Physicians should be on the administrative bodies of hospitals.
3. General practice sections in hospitals should be encouraged.
4. Staff meetings required by the Joint Commission are acceptable, but attendance requirements should be set up locally and not by the Commission.
5. The Joint Commission should not concern itself with the number of hospital staffs to which a physician may belong.
6. The Joint Commission is not and should not be punitive.

The Committee recommended that commissioners appointed by the AMA urge the Commission to study (1) the problems of the exclusion from hospitals and arbitrary limitation of the hospital privileges of the general practitioner, and (2) methods whereby the following stated principles may be achieved:

The privileges of each member of the medical staff shall be determined on the basis of professional qualifications and demonstrated ability.

Personnel of each service or department shall be qualified by training and demonstrated competence, and shall be granted privileges commensurate with their individual abilities.

Another major action by the House involved the problem of *private practice by medical school faculty members*, which has been under study by the Committee on Medical and Related Facilities of the Council on Medical Service. A Council report was adopted which stated "that it shall be the policy of the American Medical Association that funds received from the private practice of medicine by salaried members of the clinical faculty of the medical school or hospital should not accrue to the general budget of the institution and that the initial disposition of fees for medical service from paying patients should be under the direct control of the doctor or doctors rendering the service".

It was recommended that adequate liaison be developed and maintained between each component medical society and any medical school, or schools, in its area.

Calendar of Coming Events

- FIRST INTER-AMERICAN CONFERENCE ON OCCUPATIONAL MEDICINE AND TOXICOLOGY—University of Miami, Miami, Florida—September 3-7.
- AMERICAN ASSOCIATION OF OBSTETRICIANS AND GYNECOLOGISTS—Hot Springs, Virginia—September 6-8.
- COUNTY SOCIETY OFFICERS' CONFERENCE—Hotel Virginian, Lynchburg, Virginia—September 15.
- AMERICAN COLLEGE OF SURGEONS—42nd Annual Clinical Congress—Civic Auditorium—San Francisco, California—October 8-12.
- THE MEDICAL SOCIETY OF VIRGINIA—Hotel Roanoke, Roanoke, Virginia—October 14-17.
- AMERICAN COLLEGE OF GASTROENTEROLOGY—Annual Course in Postgraduate Gastroenterology—The Roosevelt, New York City, New York—October 18-20.
- SOUTHERN MEDICAL ASSOCIATION GOLDEN ANNIVERSARY MEETING—Washington, D. C.—November 12-15.
- AMERICAN PUBLIC HEALTH ASSOCIATION—84th Annual Meeting—Convention Hall, Atlantic City, New Jersey—November 12-16.
- CONFERENCE ON PROBLEMS OF AGING AND CHRONICALLY ILL—Sponsored Jointly by The Medical Society of Virginia and the Virginia Council on Health and Medical Care—Hotel Jefferson, Richmond, Virginia—November 15.
- AMERICAN MEDICAL ASSOCIATION—Clinical Meeting—Seattle, Washington—November 27-30.

New Members.

Since the list published in the July issue of the Monthly, the following new members have been admitted into The Medical Society of Virginia:

Max Erwin Bertholf, M.D., Roanoke
Thomas Christie, M.D., Roanoke
Kenneth M. Clements, M.D., Warwick
Alger Bernard Harrison, M.D., Franklin
George Robert Smith, Jr., M.D., Shawsville
Richard Holloday Smith, Jr., M.D., Harrisonburg
Edward J. Stoll, M.D., Lynchburg
Merna May Warne, M.D., Falmouth.

American Medical Association.

At the annual meeting of the Association, held in Chicago, June 11-15, Dr. Dwight Murray, Napa, California, was installed as president, succeeding Dr. Elmer Hess, Erie, Pennsylvania. Other officers elected are: Dr. David B. Allman, Atlantic City, president-elect; Dr. F. S. Crockett, Lafayette, Indiana, vice-president; Dr. George Lull, Chicago, secretary; and Dr. J. J. Moore, Chicago, treasurer. Dr. E. Vincent Askey, Los Angeles, and Dr. Louis Orr, Orlando, were re-elected speaker and vice-

speaker of the House of Delegates. Dr. Julian P. Price, Florence, South Carolina, was re-elected to the Board of Trustees, and Dr. Hugh Hussey, Washington, was elected to fill Dr. Allman's place on the Board.

Dr. W. C. Akers,

Stuart, has been honored by the Rotary Club for his part in the growth and development of Patrick Henry County. He has been practicing in the county for forty-three years and founded the Stuart Hospital. Dr. Akers was presented with gifts by the Club at its June meeting.

Dr. Thomas H. Hunter,

Charlottesville, has been elected a member of the Harvard University Board of Overseers.

Health Department News.

Dr. T. J. Spencer, formerly with the Virginia State Department of Health as Director of the Giles-Montgomery-Radford Health District, has been assigned to the Fredericksburg-King George-Stafford-Spotsylvania Health District with headquarters at Fredericksburg, effective July 16.

Dr. G. B. Tyler retired July 1 after ten years service as Director of the Augusta-Staunton-Waynesboro Health District. Dr. Wesley W. Wieland has been appointed to this position and will take over the duties of this office in the near future.

Gloucester and Mathews Counties, formerly without a local health department, made the necessary appropriations, effective July 1, and will be joined with the existing Essex-King and Queen-Middlesex Health District under the direction of Dr. C. A. Broadbudd as soon as additional nursing and sanitation personnel can be secured.

Craig and Floyd Counties, formerly without full-time local health departments, have made the necessary appropriations, effective January 1, 1957, and will be joined with other existing districts as of that date.

Ford Foundation Grants.

Checks totalling \$26,080,200 were mailed the latter part of June to 959 voluntary, nonprofit hospitals in the 48 states, Alaska, Hawaii and Puerto Rico. This is the third mailing by the Ford Foundation. This is the last group mailing in the more than 3,000 hospitals eligible to receive the first payment of their grants.

Virginia Hospitals included in this list are: Alexandria Hospital, Alexandria; Bedford County Memorial Hospital, Bedford; Southside Community Hospital Association, Farmville; Warren Memorial Hospital, Front Royal; The Loudoun County Hospital, Leesburg; Stonewall Jackson Hospital, Lexington; Marshall Lodge Memorial Hospital and Guggenheimer Memorial Hospital, Lynchburg; Northampton-Accomack Memorial Hospital, Nassawadox; Radford Community Hospital, Radford; Crippled Children's Hospital, Retreat for the Sick, and Richmond Community Hospital, Richmond; Franklin Memorial Hospital, Rocky Mount; The Halifax Community Hospital Association, South Boston; Community Memorial Hospital, South Hill; King's Daughters Hospital, Staunton; Sweet Briar College operating Mary Harley Infirmary, Sweet Briar; and Waynesboro Community Hospital, Waynesboro.

Dr. H. G. Hudnall,

Who has practiced in Covington for twenty-one years, has closed his office there and is now a member of the internal medicine staff at the Veterans Administration Hospital in Roanoke.

Drs. Hedges, Fitz-Hugh, Crigler and Humphries,

Charlottesville, announce the association of Dr.

Walter Copley McLean in the practice of otolaryngology, maxillofacial surgery, and broncho-esophagology.

Dr. Waverly R. Payne,

Newport News, has been appointed by Governor Stanley, to the board of visitors of the Medical College of Virginia. This will be the second time he has served, having completed a previous term last July.

DePaul Hospital Staff.

Dr. H. William Fink has been elected president of the medical staff of DePaul Hospital, Norfolk. Dr. William Hotchkiss was elected vice-president and Dr. Harry B. Taylor re-elected secretary. Dr. George Hollins was named to the executive committee.

The Mecklenburg County Chapter,

North Carolina Academy of General Practice, is sponsoring a symposium on Abdominal Conditions at the Hotel Charlotte, Charlotte, N. C., on November 8th. Speakers and subjects will be Dr. J. P. Nesselrod, Northwestern Medical School, Chicago, on Technique and Value of Sigmoidoscopy; Dr. Lewis I. Post, Tulane Medical School, New Orleans, on Detection of Ectopic Pregnancy; Dr. Orvar Swenson, Tufts School of Medicine, Boston, on Unexpected Abdominal Conditions in Infancy and Childhood; Dr. N. Frederick Hicken, University of Utah Medical School, Salt Lake City, on Non-Penetrating Abdominal Injuries; Dr. Paul S. Rhoads, Northwestern Medical School, Chicago, on Management of the Jaundiced Patient; and Dr. Frederic D. Zeman, New York City, on Gastro-Intestinal Disorders in the Elderly Patient.

Further information about this symposium may be obtained from Dr. Philip Naumoff, Chairman of the Program Committee, 1012 Kings Drive, Charlotte 7, N. C.

Dr. David C. Whitehead

Has completed a residency in ophthalmology and re-opened his offices at 1306 Colonial Avenue, Norfolk, for the practice of ophthalmology.

Dr. Arthur M. Smith,

Charlottesville, announces the association of Dr. Morton C. Wilhelm in the practice of general surgery.

Dr. William J. O'Rourke,

Recently of Richmond, has accepted the position of Chief of the Physical Medicine and Rehabilitation Service at the Veterans Administration Hos-

pital in Cincinnati, Ohio. He assumed his new duties on July 1st.

Conference on Obstetrics and Gynecology.

The University of Virginia School of Medicine will have a Conference on Obstetrics and Gynecology on September 28th. Guest speakers will include Dr. C. H. Mauzy, Associate Professor of Obstetrics and Gynecology, Bowman-Gray School of Medicine; Dr. Robert A. Kimbrough, Jr., Chairman of the Department of Obstetrics and Gynecology, Graduate School, University of Pennsylvania; and Dr. Andrew A. Marchetti, Professor of Obstetrics and Gynecology, Georgetown University School of Medicine.

Richmond Area Heart Association.

At the annual meeting of this Association in June, Dr. Paul D. Camp was elected president and Dr. Douglas G. Chapman vice-president.

Hospital Changes Name.

As of June 12th, the King's Daughters' Hospital, Portsmouth, will be known as and operate under the name of Portsmouth General Hospital, Incorporated.

American College of Chest Physicians.

At the 22nd annual meeting of the College, held in Chicago, June 6-10, Dr. Herman J. Moersch, Rochester, Minn., was installed as president and Dr. Burgess L. Gordon, Philadelphia, was elected president-elect.

Dr. Dean B. Cole, Richmond, serves as Regent of the College for Virginia, Maryland, West Virginia, and the District of Columbia. Dr. E. C. Drash, Charlottesville, was re-elected Governor of the College for Virginia.

Urology Award.

The American Urological Association offers an annual award of \$1000 (first prize of \$500, second prize \$300 and third prize \$200) for essays on the result of some clinical or laboratory research in Urology. Competition shall be limited to urologists who have been graduated not more than ten years, and to hospital internes and residents doing research work in Urology.

The first prize essay will appear on the program of the forthcoming meeting of the American Urological Association, to be held at the Hotel William Penn, Pittsburgh, Pennsylvania, May 6-9, 1957.

For full particulars write the Executive Secretary, William P. Didusch, 1120 North Charles Street, Baltimore, Maryland. Essays must be in his hands before December 1, 1956.

Graduate Nurse Scholarship Program

The Old Dominion Foundation has made a grant to the Virginia Council on Health and Medical Care which will make it possible for the Council to inaugurate a graduate nurse scholarship program. The grant will provide the sum of \$5,000 a year for three years. The scholarship program will be administered through the Committee on Nursing of the Virginia Council on Health and Medical Care of which Dr. W. T. Sanger, Medical College of Virginia, is chairman.

Mr. Paul Mellon was the founder of the Old Dominion Foundation, and he serves as chairman of the Board of Directors.

Mr. Edgar J. Fisher, Director of the Virginia Council, stated that the Council and many of its member organizations, including all nursing groups in the State, had hoped that the last session of the General Assembly would make funds available for the graduate nurse scholarships but it failed to do so. He pointed out that with the current shortage of nurses it is hoped that by setting up this program one effective step can be taken to meet the shortage.

Mr. Fisher stated in his request to the Old Dominion Foundation that recent statistics showed that 131 additional faculty members were needed in 32 schools of nursing in Virginia which replied to a questionnaire sent to them by the Virginia State Board of Nurse Examiners. It was pointed out that the enrollment of student nurses in some of these schools is being held down because of the lack of teaching and administrative personnel. The graduate nurse scholarship program will help provide additional training for registered professional nurses who may wish to enter the teaching and administrative fields.

The grant will provide five (5) \$1,000 scholarships a year for three (3) years for registered professional nurses who will agree to work in Virginia one year for each year the scholarship is held. A scholarship can be held for a maximum of two (2) years by the same person. Applicants need not be Virginians. Candidates may work for either a bachelor of science or master of science degree in nursing. They may use their scholarship at any college or university in the country offering an approved program in nursing education. The University of Virginia is the only institution in Virginia offering such a program.

Applications for the scholarships should be made to the Virginia Council on Health and Medical Care, 102 East Franklin Street, Richmond 19, Vir-

ginia. The deadline for filing will be August 15th each year.

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ban Richmond for general practitioner or pediatrician. Should gross \$30,000 first year. Write #75, care the Monthly, P.O. Box 5085, Richmond 20, Va. (*Adv.*)

Obituaries

Dr. Ernest Benjamin Nuckols,

Well-known physician of Cumberland, died July 11th. He was seventy-nine years of age and a graduate of the Medical College of Virginia in 1908. Dr. Nuckols had practiced in Cumberland County for forty-eight years and was a member of the staff of the Southside Community Hospital in Farmville. He was a Mason and a member of the Ruritan Club. Dr. Nuckols had been a member of The Medical Society of Virginia for forty-three years.

His wife, a son and a daughter survive him.

Dr. Richard Wingfield Vaughan,

Richmond eye, ear, nose and throat specialist, died June 30th following a heart attack. He was sixty-three years of age and a graduate of the Medical College of Virginia in 1916. Dr. Vaughan was a member and past master of Fitzgerald Masonic Lodge. He had been a member of The Medical Society of Virginia for sixteen years.

His wife and two daughters survive him.

Dr. Davis.

Dr. Robert Allen Davis, who died on April 29th, following a short illness, was born November 20, 1886 in York County. He was graduated from the University of Virginia with an M.D. degree in 1909. Shortly after this he spent a short time in general practice, but then returned to Newport News, where he spent the remainder of his life, with the exception of the time that he spent

in the United States Army during World War I.

When he first entered the practice of medicine he was connected with the Elizabeth Buxton Hospital in Newport News, as a general practitioner, and after World War I started the x-ray Department in this hospital, and was a pioneer in x-ray work on the lower Virginia Peninsula. His interest in general practice was very strong because of his love to be with, and associated with people. In the early 30's he confined his work to x-ray entirely and was very instrumental in furthering the development of Elizabeth Buxton Hospital, and was entirely responsible for the development of the x-ray Department.

Because of his relationship with general practice he was most sympathetic to the problem of the general practitioner. He was always willing, and never too busy, to discuss the x-ray findings, and to be of any help, in any way that he might, to any doctor who entered his office.

He was well read on current literature and was always willing to listen to any discussion that might further his medical knowledge.

THEREFORE, BE IT RESOLVED, that Dr. Davis's death removed from the Peninsula a beloved physician, wise counselor and a devoted friend. It is also resolved that this tribute be recorded in the official minutes of the Radiological Society of Virginia and a copy of the same be sent to the family of the deceased, The Medical Society of Virginia, and the Radiological Society of North America.

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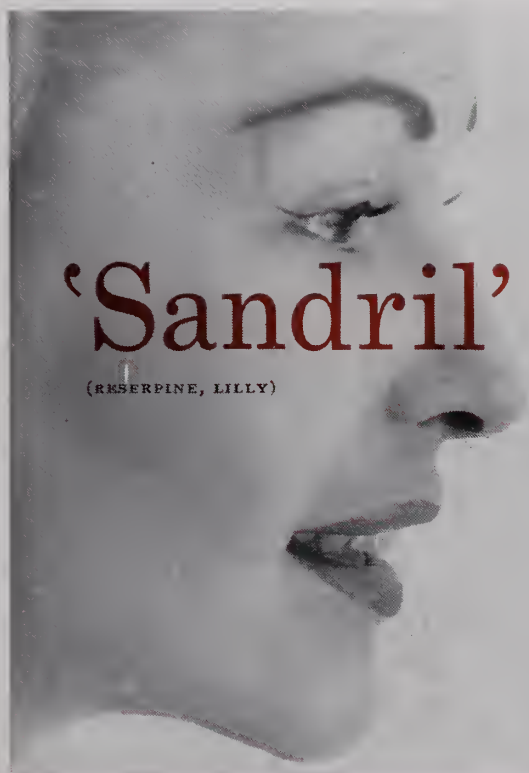
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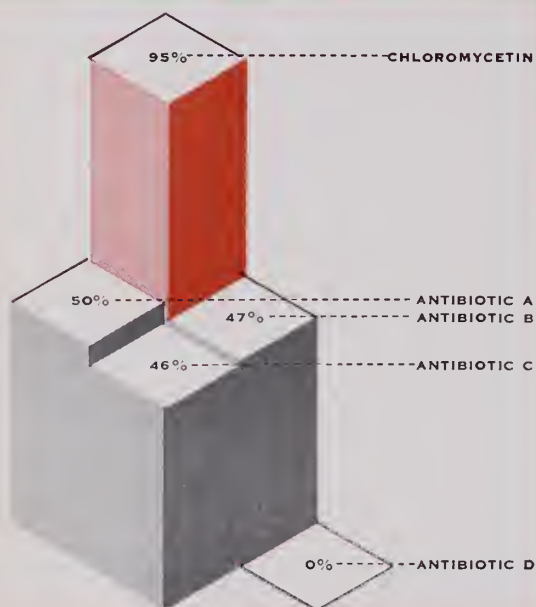
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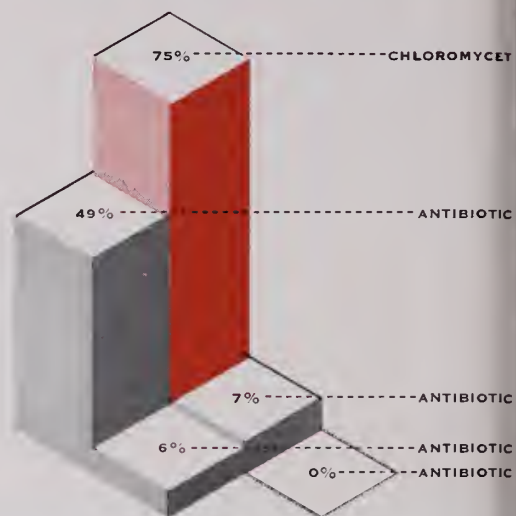
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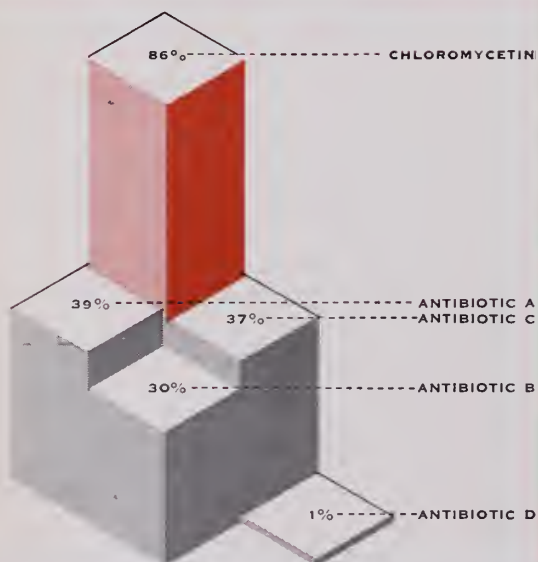


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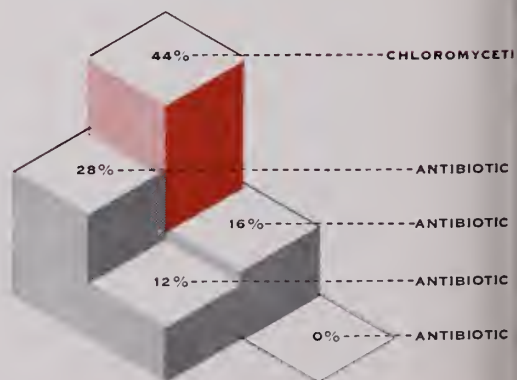


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(143-248 STRAINS)



PSEUDOMONAS AERUGINOSA
(39-70 STRAINS)



*This graph, based on *in vitro* studies, is adapted from Horton and Knight.

VIRGINIA MEDICAL MONTHLY

(Founded by Landon B. Edwards, M. D., April 1874)

PUBLISHED MONTHLY BY THE MEDICAL SOCIETY OF VIRGINIA

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1105 West Franklin Street
Richmond 20, Virginia

Annual Subscription—\$2.00
Single Copies—25¢

TABLE OF CONTENTS

GUEST EDITORIAL

"Legal Mortis"—William Minor Deyerle, M.D.----- 369

SCIENTIFIC ARTICLES

Medicine in Industry—Common Objectives—
R. L. Vosburg, M.D.----- 371

Industrial Medicine at the Community Level—
R. Lomax Wells, M.D.----- 374

Unusual Patella Bursitis—Virgil R. May, Jr., M.D., and
John F. Butterworth, M.D.----- 379

North American Pit Vipers—Bacterial Flora of the Mouths
and Venom Glands—Henry M. Parrish, M.D., Angus
W. MacLaurin, Ph.D., and Robert L. Tuttle, M.D.---- 383

Lateral Arterorrhaphy and Transvenous Aneurysmorrhaphy
for Traumatic Carotid Aneurysm and Carotid-Jugular
Arteriovenous Fistula—Hyman Cantor, M.D.----- 386

Pyridoxine (Vitamin B⁶) in Alcoholism—Gerald W. Pat-
terson, M.D., and William C. Kappes, Jr., M.D.----- 391

PUBLIC HEALTH

Rocky Mountain Spotted Fever----- 394

MENTAL HEALTH

How the Guidance Center Benefits Our Community---- 396

BOOK ANNOUNCEMENTS ----- 399

WOMAN'S AUXILIARY ----- 400

THE MEDICAL SOCIETY OF VIRGINIA

Program, Annual Meeting----- 403

EDITORIALS

The Emily Gardner Memorial----- 411

Some Factors Concerning the Cause of
Coronary Heart Disease ----- 412

SOCIETY PROCEEDINGS ----- 415

NEWS ----- 417

OBITUARIES ----- 420

SHORT SUBJECTS—New Clamp for Aortic Surgery, 373; Hos-
pital Statistics, 373; The Credit Bureau—A Place in the Medical
Picture, 378; Congenital Syphilis Rate, 382; Plastic Plug Re-
places Tracheotomy Tube, 385; Typical M.D. Travels, 393;
Let's Reminisce, 395; Press "Top-Grade", 402

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INDEX TO ADVERTISERS—Page 56

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Unlike some antibacterial agents which are specific for one type of organism only, or others to which bacterial resistance readily develops, CHLOROMYCETIN demonstrates continued efficacy against a wide variety of commonly occurring microorganisms: "Sensitivity of many strains of pathogens to chloramphenicol [CHLOROMYCETIN] and limited tendency of these organisms to develop resistance to this antibiotic explain the effectiveness of chloramphenicol where other antibiotics and chemotherapeutic agents have failed."¹

CHLOROMYCETIN is a potent therapeutic agent, and because certain blood dyscrasias have been associated with its administration, it should not be used indiscriminately or for minor infections. Furthermore, as with certain other drugs, adequate blood studies should be made when the patient requires prolonged or intermittent therapy.

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Guest Editorial

“Legal Mortis”

AS I FOLLOW current events and notice the actions from the Supreme Court to the most learned lawyers, it appears that we are going through what will be referred to in history as “The Age of Litigation”. It therefore seems to be appropriate to discuss some of the medico-legal aspects of this age in which we live. “Legal Mortis”, sometimes referred to as “Rigor’s Legals”, might be defined as that reaction of a patient’s mind and body to the knowledge that another party may be financially responsible for physical or mental suffering. The fact that the condition is usually not lethal makes it no less awe-inspiring and perplexing. It sets in long before death and, in fact, seems to confer an unusual quality of longevity.

The prodromal symptoms vary. The onset may be especially rapid when a lawyer escorts the patient into the office on the initial visit. Paradoxically, the initial medical care is often remote from the alleged date of the accident. In some cases it is slow and appears at a time when the affected patient has almost completely recovered. As an example, a patient has been recovering satisfactorily for several months, then for no apparent reason all of his symptoms seem to be worse, having adverse effects on his job, family, and all his environment. A careful examination reveals no objective findings to substantiate the subjective complaints. The true nature of this relapse is usually clarified by a very casual remark of the patient as he leaves the office, “Doctor, I have a lawyer; would you mind sending him a report concerning my condition?”

Once “Legal Mortis” is established, there can be no predicting the various reactions. One unusual feature is a “metastatic symptom”. In recording the complaints, the physician may ask the patient if she has backache. Before the patient can reply, the husband sitting nearby answers minutely that she has severe back pain with radiation to the left great toe, aggravated by sneezing and that she never has had a pain prior to the accident. In the absence of the husband the symptoms may “metastasize” to other relatives or the lawyer who usually is sitting nearby. These “metastasizing symptoms” can usually be placed in proper perspective by quoting by name the various individuals offering the information, thank them for their aid and explain that they will be quoted directly in your report. This may prevent further “metastasizing symptoms” and at times causes a miraculous retraction of the entire “metastatic symptom”

complex. A method of quoting directly in one's progress notes and reports helps clarify other manifestations of "Legal Mortis". As an example, the physician is not infrequently confronted with a patient under his care who has previously made no reference to an on-the-job injury or other litigious condition during the course of the treatment. At some later date he states that it was an on-the-job injury and requests a report. This can be handled by quoting the patient directly in your progress note, but explain to the patient clearly that your previous records show no information concerning the injury. Inform him that you will be glad to quote him as the date he first mentioned the injury and make any statement he wishes in direct quotes, explaining however that if a report is required of you, you will give the initial history as he gave it and you will also give this additional information given at a later date. This puts the delayed recollection of an on-the-job injury in its proper perspective with the patient, insurance carrier, and the Industrial Commission.

Another example of the paradoxical nature of "Legal Mortis" is the inability of the patient to actually describe his symptoms to the physician. The lawyer, having received the report, calls and states, "Doctor, I just don't understand it, your report states that the patient's chief complaint is some soreness in her neck and she tells me she has pain in both arms, constant headache, and is unable to do any work because of the severe neck pain." In this event one may repeat the examination and hope that at a later date the patient will confide his complaints to his physician as well as to his lawyer.

Lawyers should have insight into these cases of "Legal Mortis" but their clairvoyance seems to be completely dependent upon whether they represent plaintiffs or defendants. As an example, a defendant's lawyer calls to say that the patient is allegedly injured but that he knows the injuries are extremely mild and he wants a report just for the record. The plaintiff's lawyer calls about the same patient to say that if the severe injuries sustained by the patient will permit, he will be brought in by way of ambulance. Another aura of "Legal Mortis" that often precedes the patient's visit is a large file of medical reports. To avoid this "Legal Mortis" from becoming contagious and rubbing off on some of the physicians, one should examine the conclusions in these many reports *only after* the examining physician's own unbiased report is completed. The physician can cope with "Legal Mortis" in a more equitable manner if he does not allow himself to be labeled a "Plaintiff's Doctor" or a "Defendant's Doctor". He should remember at all times that he is a witness and not an advocate. He may be an advocate for his opinion, but he should not think of himself nor allow others to think of him as for or against the plaintiff or defendant. If the physician allows himself to continually examine patients for one side, either plaintiff or defendant, he will subconsciously lose his objectivity in his reports and testimony. If he does not remain objective, his reports and opinions will be of little value to the patient, to the court, or to either side in the litigation.

WILLIAM MINOR DEYERLE, M.D.

EDITOR'S NOTE: Dr. Deyerle is assistant professor of orthopedic surgery, Medical College of Virginia.

Medicine In Industry

Common Objectives

B. L. VOSBURGH, M.D.
Schenectady, New York

GENERAL ELECTRIC has just established a very fine manufacturing plant in your community, and it seems fitting that we should discuss our common objectives. But before doing so at the risk of boring some of you I should like to tell you a little bit about the Company and its Roanoke plant. In becoming one of the nation's largest corporations it has been necessary for G.E. to expand its manufacturing facilities to 136 plants in 105 communities of 28 states. Decentralization has paralleled this expansion program so that in effect the Company has become an amalgamation of twenty odd businesses held together by common ties and interests in the manufacture, distribution and services of electrical goods. Research laboratories of a general or specific nature are maintained to assure that progress continues to be the Company's "most important product".

The Roanoke plant is one of the Company's very interesting plants. It is called Industry Control, which means that it makes unique devices for operating automatically the infinite variety of machines that are used in this nation's industries; for example, the controls for cold rolling steel, for precision presses, for automatic lathes and various chemical, food and industrial processes.

It is expected that this plant will employ 1800-2000 people, about 300 of whom, chiefly management people and engineers, are newcomers from other parts of the Company. I understand that this control business is currently booming and that the payroll will approach nine millions annually. In due course each one of you, if you have not already done so, will want to visit the plant to learn first hand something about the manufacturing methods, to become acquainted with the management people, to view working conditions and to understand the importance attached to human relations.

Human or employee relations is the area of common interest for community businesses and community doctors. People and their composite health, so to speak, represent the backbone of any industry. Someone has said that anyone can duplicate the

bricks and mortar, the machines and even the best methods, but the real success of the business will rest with the employees.

General Electric has been most anxious to select carefully its employees in this community. An important factor in that selection has been the health status of each and every one, and the maintenance of health will become a continuing interest. While the immediate responsibility for the health program rests with the plant physician and his consultants in special diagnostic fields, I wish to submit that the enthusiastic co-operation of all community health resources, including every community doctor, is needed to insure the success of our modern industrial health program. The doctor at the plant has a big job to do. He is the health officer for the plant. He approves the selection of employees. He sets up a health maintenance program. He understands almost every job in the plant and is responsible for pointing up harmful factors in the working environment. He is responsible for the care of workers who take sick or become injured on the job and for the disposition of those who come to work sick or injured. He gives professional direction to nurses and other paramedical aids so that all the objectives of the program will be attuned at all times. He shares management's interest in the optimum productiveness of employees and is anxious to health counsel employees who present problems. Many of the cases of absenteeism and labor turnover fall to his lot. He knows that most of the illnesses and injuries that cause absence from work are of a personal nature and therefore come under your responsibility. He can only interpret the Company's interests and attitudes to you and help in some measure with a program of health education that has as its guide the prevention of injury or disease and the early recognition of disease. It has been proved that the home and highway and recreation accident record of employees who have had the advantage of a good in-plant safety program is very much better than average. It seems logical to suppose that the same principle might apply to illness prevention.

At this point let's re-examine our position to make certain that it makes sense. We have stated that

Delivered before Roanoke Academy of Medicine, February 6, 1956.

fundamentally the Company is interested in employee health because, if for no other reasons, healthy employees are more productive. Because we are including mental health, too, this interest also relates to lessened absenteeism, labor turnover and a better employee relations index. I won't stop to explain the full meaning of E.R.I. Suffice to say it includes the traits that go to make a good employee.

We believe then that physically and mentally healthy employees are able to produce more goods. That is surely good for the Company. It is also good for employees because of greater job satisfactions and increased earnings. It is also good for our community doctors because the very program that develops optimum health for employees must necessarily depend upon the increased efforts of community doctors in the fields of preventive and curative medicine. It is logical to ask, of course, who pays for their added efforts? Employees and the Company both pay. The part employees pay should be more than offset by increased earnings, and the part the Company pays through its new Insurance Plan, which underwrites the lion's share of the cost of serious ills, should be offset by increased productivity and satisfactions in health maintenance.

It is readily apparent then that here is an area of activity in which everyone benefits. Isn't that remarkable! You are doubtlessly quite familiar with the salient features of and the philosophy behind the new Insurance Plan that has been in effect since November 1, 1955.

Two forms of medical benefits were offered, and it is a great tribute to the good common sense expressed by our employees that 96% selected the Comprehensive which has a deductible and a co-insurance feature instead of the "Basic & Extended" which pays small bills initially on a specific fee schedule but, because of this, must necessarily not give as adequate coverage when a real catastrophe strikes.

I would be remiss if I did not emphasize that a great deal of thought has been given to the content of these insurance coverages. They have been designed to furnish at reasonable cost a guarantee that one's life's savings will not be wiped out in case of health disaster. At the same time the deductible and co-insurance features tend to dissuade employees from extravagant and unwarranted indulgences. The theme underlying the plan is, like automobile coverage, that one should pay for his own petty damages (none are so petty anymore) but should have very adequate coverage in case of a serious smash-up. Those who devised the Comprehensive Plan have

fond hopes that the test of time will prove the analogy and also vindicate their faith in human nature. They hope, too, that if the plan proves a howling success, it may even set a pattern for emulation by many industries and possibly by all employed people and their families everywhere.

We realize that no small part of the responsibility for making the test of time vindicate our optimism rests with the doctors in the communities where our 220,000 employees work and reside. If the plan, now set up for a five-year trial, is to survive and succeed, it will demand of all of us a mature viewpoint even in the face of attitudes on the part of some of our patients. We will always have a few people trying to get something for nothing. Some always want to rebuild their cars because of a scratched fender. As you know the United Mine Workers are having a terrific time conserving their Health & Welfare Funds. Those administering the funds have pointed up many abuses including unnecessary operations, prolonged hospitalization, unwarranted high fees, collusion in permitting well workers to collect sick benefits and a host of others. Ours, of course, is not a welfare fund but, despite reasonable safeguards, many features of the plan could conceivably fall heir to the same kind of abuses. If that should happen, it would kill the golden goose, defeat our honest attempt at solving the medical economics for our employees and add one more down hill step in the direction of Socialized Medicine. And I might add that the earlier and the better are your diagnoses and the more effective your care, the better should be the insurance experience.

Please forgive me if my apparent anxiety sounds like demagoguery. I do not mean to preach. I suspect that the people I should be talking to are not in this audience at all. I have that much in common with the preacher. But, if the points that I have tried to raise make any sense, please keep them in mind and play them back if and when it may be necessary.

Please feel free to criticize our Health Insurance Plan. Although it had long study, it is new and pioneering and may well have some bugs in it. We hope—no great big bugs!

Please try to co-operate with our plant physician. He has a big responsibility and will be asking for help frequently. Phone him when necessary to acquaint him informally with detailed or confidential matters that you cannot write so well. I am sure that he will keep your confidences.

And finally don't forget: You have a cordial invitation to visit the plant. In the not too distant future we will arrange a physicians day at which time you will be able to visualize more clearly the size and complexity of a modern industry and the

important part you can play in the health program for all employees. .

*1 River Road
Schenectady, New York*

New Clamp for Aortic Surgery

A new clamp without handles for use during blood vessel surgery was described in the July 7 Journal of the American Medical Association.

The clamp is used to stop the flow of blood through the aorta during surgery to remove an aneurysm—a blister-like bulge in the wall of the aorta.

Older clamps with long handles have proved cumbersome and difficult to apply when space is limited. Dr. J. Karl Poppe, Portland, Ore., said. This is particularly true when two clamps are required, one

on either end of the aneurysm. The ends of the new clamp are held together with winged nuts so that adjustments for thickness of the aneurysm neck and tension can be made.

The new clamp's long sturdy jaws overcome another disadvantage of the older clamps in which the blades sometimes were too short to extend across the entire neck of a large aneurysm. A slight inward bowing of the middle of the new clamp's blades prevents it from slipping sideways.

Hospital Statistics

United States hospitals cared for 21,072,521 patients in 1955, more than in any previous year, according to the American Hospital Association. This was an increase of 727,090 over 1954's total of 20,345,431.

A total of 3,476,753 babies were born in U. S. hospitals last year, a rise of 134,154 over the 1954 total of 3,342,599 hospital births.

On any day in 1955, there was an average of 1,363,024 patients and 49,467 newborn infants in U. S. hospitals.

In 1955, the AHA reported, United States hospitals spent \$5,594,504,000 to care for these patients and newborn infants compared with \$5,229,040,000 in 1954, an increase of \$365 million.

A steady rise in hospital admissions has taken place since 1946, the year in which the American Hospital Association began its statistical series. The 1955 statistics were published in Part II of the annual Guide Issue of HOSPITALS, Journal of the Association. The information was gathered from questionnaires answered by 6,956 hospitals in the country.

Industrial Medicine At the Community Level

R. LOMAX WELLS, M.D.

Washington, D. C.

THIS OPPORTUNITY to address the Roanoke Academy of Medicine is a most welcome one. It is always a happy occasion when one can spend some time with old friends—among you are classmates of mine in medical school, the local medical representatives of my own Company, and many with whom I have had most pleasant contacts by telephone and through correspondence in handling various medical problems among our employees in this community. Dr. Vosburgh has presented to you the aims and policies of the Medical Division of the fine new General Electric Plant recently established here. As a representative of an old and long-established member of your community, The Chesapeake and Potomac Telephone Company of Virginia, I join with you in welcoming him and his associates to Roanoke. For some twelve years now I have had many contacts with members of our profession in this area. I am certain that the understanding and cooperation you have always accorded me and my associates will be extended to the new General Electric family and prove as comforting and heart-warming to them as it has to us.

The Chesapeake and Potomac Telephone Company of Virginia has a Plan for Employees' Pensions, Disability Benefits and Death Benefits which has been in operation since 1913. It has been subjected to constant scrutiny and has been revised and liberalized when economic conditions and sound actuarial judgment justified a change. It is a non-contributory plan with the cost being borne entirely by the Company. Payments for absences due to illness or injury lasting over seven consecutive calendar days begin with the completion of two years' net credited service with the Company. The amount and length of payment of the benefits extend upward on a graduated scale until the maximum benefits of a year's full salary are accorded employees with twenty-five (25) or more years of service. I would emphasize that the payment of sickness benefits must be substantiated by the personal physician's certification of illness. The Company neither wants nor expects the sick or injured employee to be on the job, but it does expect him to seek medical care promptly and to return to the job as soon as is com-

mensurate with safety to himself and his fellow employees. Our plan neither contemplates nor do its administrators knowingly condone its use for absence not due to illness or injury. It is not a plan whereby the employee is entitled to a specified number of days' absence per year whether he is really ill or not. It is a plan designed to help the employee who is sick or injured and it has stood the test of time and intelligent administration.

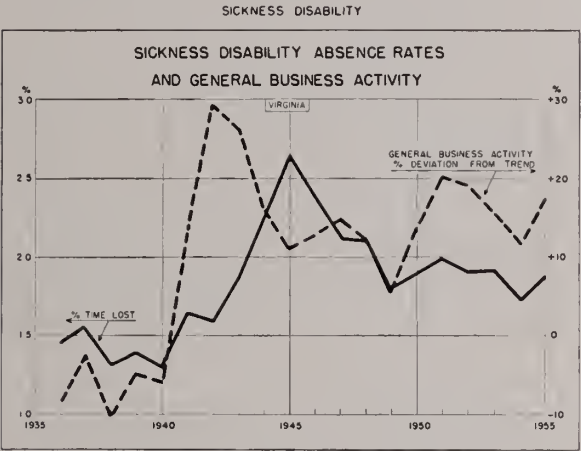
The Chesapeake and Potomac Telephone Company of Virginia is one of the four C. and P. Companies. The other three operate in the District of Columbia, Maryland, and West Virginia. As a group, the four Companies had 31,472 employees in 1955, 12,017 of whom were men (38.2%) and 19,455 of whom were women (61.8%). As of December 31, 1955, 783,611 of the 953,033 telephones in the State were operated by The C. and P. Telephone Company of Virginia and served 2,501,000 of the State's 3,588,500 people. In 1955 there were 9,163 employees on the Virginia Company's payroll—3,612 of these were men and 5,826 were women. Seven thousand, three hundred and fifty of these had over 2 years of service and were entitled to sickness benefit payments under our Plan. All 9,163 were entitled to accident benefits. During 1955 there were 320 cases of sickness disability of over 7 consecutive calendar days' duration among our male employees for which 11,420 calendar days of absence were paid. Among our women employees there were 1,111 cases of over 7 consecutive calendar days' duration for which 30,281 calendar days of absence were paid. This is a total of 1,431 cases totalling 41,701 days of absence among the whole group. Accident disability benefits for the year amounted to \$8,259.66 and sickness disability benefits amounted to \$363,754.66—a total of \$372,014.32. A reduction of one day in the length of absence of each case would have resulted in a savings of \$12,764.52 last year. In this connection I would like to point out that ours is a 24-hour-day, 7-days-a-week, 52-weeks-a-year operation. Many of our people are scheduled to work Saturday and Sunday. Because of this I would urge you to certify your patients for return to duty on the calendar day

Delivered before the Roanoke Academy of Medicine, February, 6, 1956.

R. LOMAX WELLS, M.D., *Medical Director, The Chesapeake and Potomac Telephone Companies.*

their recovery indicates and not to pick a Monday as an arbitrary return date. Effective scheduling of our forces will be greatly facilitated by your understanding of this phase of our operations.

I have given you the picture of the 1955 cost of accident and sickness disability payments to employees in our Company under our Benefit Plan. There are many other related items in providing death benefits, pensions, supplementary payments where the need is indicated, the provisions of monies to keep the Plan financially sound, the administration of the Benefit and Medical Departments. The



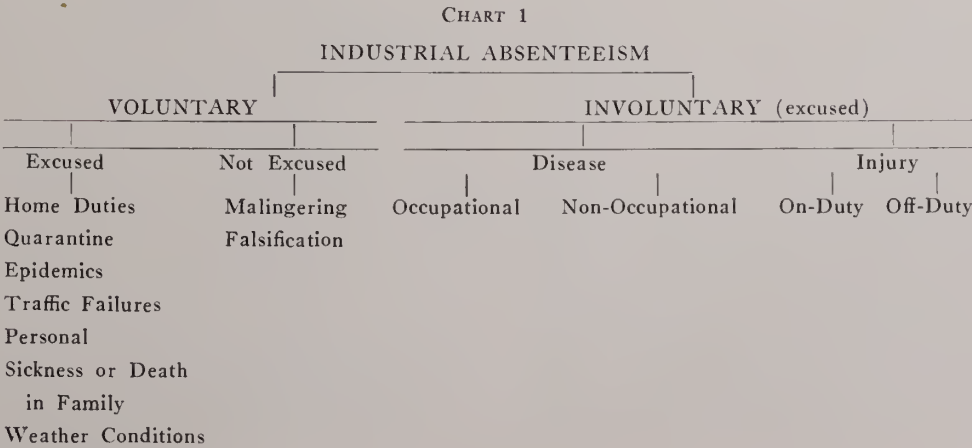
total cost of all these items related to relief and pensions was \$1,921,780.62 during 1955. The equitable administration of such funds demands and receives the closest scrutiny and planning on the part of the management of our business in the interest of all concerned—our customers, our employees, and our stockholders. Ours is a business dedicated to service, and in the performance of that essential community function I can assure you that the many facets of its administration are of constant concern to every employee. Telephone people are not only

those who serve you in the community, but they are people imbued with the will and the desire to be good citizens and an integral part of the family, social and economic structure of the towns and cities where they live and work.

Bear with me a bit longer, if you will, and let's take a look at some trends over the years and perhaps even a peek into the future. As a backdrop to this I would provide you with the headlines in the financial section of the Detroit Times for Sunday, January 22, 1956:

"1955—Unparalleled Prosperity, American economy roars out of 1954 'recession' to records in output, employment, stock prices, purchases and standard of living." With pictorial charts it graphically portrayed the "recovery in industrial output sparked by increase in passenger car output, housing starts, new plant and equipment"—all "this despite a drop in defense spending." It recorded "another poor year for the farmer in which farm prices fell while industrial prices rose and the cost of living held steady." It noted that "consumers had record spending power which was reflected in a sales boom, a willingness to borrow and a rise in savings." The overall result was a "peak out-put of goods and services, near record corporate profits, record employment and the boomiest stock market ever." This is a rosy picture, and 1956 looks even rosier to the economists who predict a rise of over \$13 billion in personal income, an increase of \$11 billion in consumer spending, and \$3 billion in business capital expenditures.

The impact of this expanding economy is given a "crystal ball look" in the American Weekly magazine for January 22, 1956—the entire issue being devoted to fascinating "facts" about the way we may soon be living. This predicted future of ours included, among other things, the following: A work week gradually dropping to 35 hours and then



to 30 hours, and such "miracles" as atomic pills (maybe this is where the physician's 30-hour work week comes in!), a telephone in your purse, and microwave cookstoves; wonderland cities of glass towers, traffic moving underground and workers moving to work on conveyor belts; flying your own helicopter, rocketing across the Atlantic in an hour; 3-D color TV, and telescopic eyes and radar brakes for your ultra-streamlined and safety-featured automobile.

An intriguing story of our present and our future is thus unfolded. Who would deny the pleasurable anticipation of greater personal income with more leisure and a better way of life? Surely not I! However, I am compelled to take a look at the possible impact of this expanding economy and "push-button" method of living on employee health and attendance at work.

Perhaps this impact is best illustrated in Figure 1, depicting sickness disability absence rates and general business activity from 1935-1955. A simple conclusion is obvious—the better business is, the higher are our sickness rates. One must observe that the employee "with the extra nickel in his pocket" is more apt to be absent than when the "extra nickel" is not there. Sickness disability absence rates, then, do not reflect sickness alone, but the many variables that influence industrial absenteeism. The epidemiological approach is no longer limited to infectious diseases in our search for the background and causes of illness and injury. Dr. Paul Dudley White, eminent cardiologist of Boston, recently spoke at The Naval Medical Center in Bethesda, Maryland, on "Epidemiological Research in Cardio-Vascular Diseases." His remarks were classic in their search for the cause of coronary artery disease in studies of race, sex, heredity, physical activity, emotions, diet and disease, obesity, the endocrine glands, social customs, and personal habits.

The epidemiological approach to the cause and prevention of highway accidents lies in a study of the host (driver), the agent (automobile), and the environment (roads, weather, etc.).

The causes of reasonable, expected and acceptable absences as well as those producing excessive work absence may be explored epidemiologically through the media of several charts. The component parts of the total absence picture are defined in Chart 1. I would stress with you that involuntary absence due to illness or injury, though excusable, is influenced by many variables other than the pathologic

changes underlying the specific cause of absence.

Chart 2 outlines epidemiological factors titled "Variables in Industrial Absenteeism". No attempt has been made to define these in order of importance, but they do influence frequency, disability, and

CHART 2

VARIABLES IN INDUSTRIAL ABSENTEEISM

- (1) The condition of our national economy.
- (2) Environment.
 - (a) Where and how the worker lives?
 - (b) What home duties does the worker have?
 - (c) Under what conditions does the employee work?
- (3) Individual employee temperament and reaction.
 - (a) Job loyalty.
 - (b) Job incentive.
 - (c) Job attitude, toward his job, his employer, his fellow employees.
 - (d) Employee sense of values.
- (4) Age of employee group.
 - (a) In relation to disease susceptibility and nature of illness.
 - (b) In relation to employee's attitude toward the job. How much does he value job security?
- (5) The attitude of the attending physician toward his patient.
 - (a) His appreciation of what his patient's job demands.
 - (b) His knowledge of and his attitude toward the problems of Workmen's Compensation.
 - (c) His treatment of and understanding management of the patient.
- (6) The type of industry.
 - (a) The variation in occupational diseases and hazards.
 - (b) Seasonal employment.
- (7) The effect of climate and weather conditions.
- (8) The day of the week.
 - (a) High absence rate over holiday weekends and on Mondays.
- (9) Epidemics and quarantine.
- (10) Recent or impending work stoppages or layoffs.
 - (a) Labor-Management relations.
- (11) Urban versus rural workers.
 - (a) Large versus small city.
- (12) Government versus private industry.
- (13) Handicapped versus non-handicapped worker.
- (14) Male versus female worker.
 - (a) The problem of pregnancy leaves.
- (15) Married versus unmarried workers.
 - (a) The influence of home and family responsibilities.
- (16) Clerical versus craft workers.
- (17) The educational level of the employee group.
- (18) The repeater sickness case.
- (19) Day versus night shift workers.
- (20) The influence and effectiveness of the Industrial Medical Department
- (21) The influence of benefit, sickness, pension and hospitalization plans.

severity rates among industrial workers. Some of these factors are major and some are minor ones. Some are readily controlled and others obviously cannot be controlled.

Earlier, I outlined the sickness experience in our Virginia Company for 1955. The variations and trends reflecting some of these epidemiological factors over a period of years are better defined quickly in Figures 2-5.

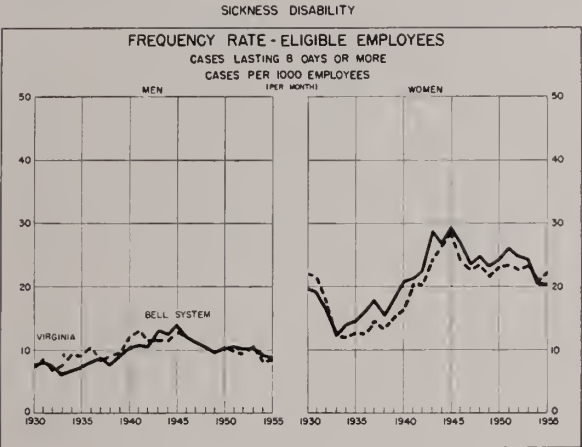


Fig. 2

Figure 2 compares the frequency rates of men and women (with over 2 years' service) in the Virginia Company with those of the Bell System from 1930-1955. The parallel over a quarter of a century is obvious. The sharp peak upward from 1940-1945 reflects the years of World War II and the lower pre-1940 levels have not been approached though the trend has been downward since 1945, with a less sharp upward peak in 1951 reflecting the impact of the Korean War. Figure 3 reflects

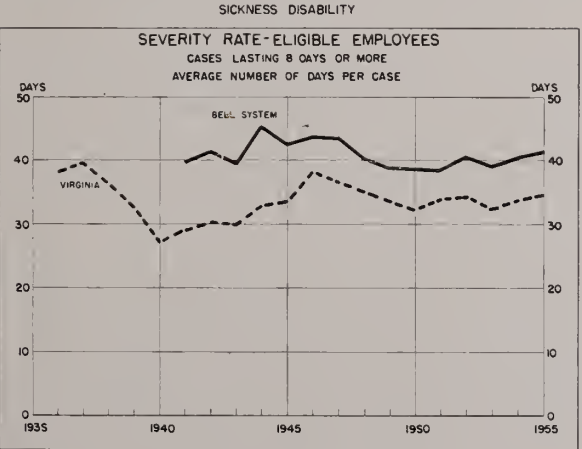


Fig. 3

the severity rates for both men and women from 1936-1955—from the lowest rate of this period in

1940 the curve went steadily upward to 1946, began to decline until 1950 when a less marked upward trend again reflecting the Korean War. Figure 4

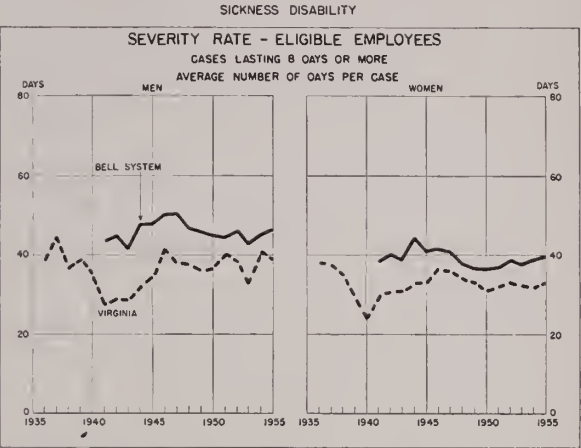


Fig. 4

reflects the severity rates, and Figure 5 the disability rates by sex for the Bell System and our Virginia Company. No one variable or factor can explain



Fig. 5

these curves—they represent the sum total of all the variables. It can be stated, however, that periods of stress, such as the War years, always result in the addition of many factors forcing frequency, severity, and disability rates upward, regardless of sex, job, and the geographical distribution of employees, etc.

It behooves us, it seems to me, to join hands as a team to be certain that unfavorable trends in worker absence due to factors within our control may not be permitted to go unrecognized and uncontrolled. Absence is costly and reflects itself in the cost of consumer goods. Let us not unwittingly contribute to any unnecessary rise in costs or perhaps we will not be able to afford our trip to the moon by the way of tomorrow's space ship!

The American Medical Association's "Guiding Principles of Occupational Medicine" has this to say:

"Occupational medicine concerns itself with all aspects of health in relation to occupation. Industrial medicine is a component of occupational medicine provided to employed groups by an employer or other third party, with a valid interest. The broad purpose of industrial medicine is the promotion of the healthful well-being of employed persons through services provided at the place of employment or at another convenient facility or location. This purpose is served by:

- "1) Prevention of disease and injury through medical supervision of workers, the work place, materials and processes.
- "2) Constructive measures such as medical examinations, counseling and health education.
- "3) Medical and surgical care to restore health and productive capacity, as promptly as possible after occupational illness or injury."

In conclusion, I submit to you the following:

- 1) There is no conflict between industrial medicine and the private practice of medicine.
- 2) Industry has done a magnificent job in reducing suffering through safety and accident prevention measures and is constantly lowering the incidence of absence due to occupational disease and injury.
- 3) You and I together face a real challenge in lowering the incidence of absence due to non-occupational disease and injury.
- 4) And finally, only through a mutual understanding of our problems and the kind of cooperation that I personally have come to expect and do receive from you in private practice can we meet this challenge in the primary interest of your patient—our employee.

*725-13th Street, Northwest,
Washington, D. C.*

The Credit Bureau ... A Place in the Medical Picture

The question has often confronted many of us, "How can we collect more of our accounts at minimum cost?" It boils down to a method of practical and ethical application of sound business procedures.

The first line of the Principles of Medical Ethics reads, "The prime objective of the medical profession is to render service to humanity; reward or financial gain is a subordinate consideration." Secondary yes, we all admit but a very necessary evil, if the doctor is to operate his business profitably, and he must do so if he is to continue in practice. It is important that he apply basic business principles but also preserve his professional status by considering, first, his patients.

The Credit Bureau of Richmond, Virginia, Inc., an affiliate of the Associated Credit Bureaus of America, and other bureaus located in Virginia, and the United States, are rendering invaluable assistance, at minimum cost, to the medical profession. On file in their records are the credit histories of literally

millions of people; Richmond, alone, has over $\frac{3}{4}$ million which can be inestimable aid in determining the patient's ability and willingness to satisfy his obligation. In addition, the Credit Bureau, although not a collection agency, has available a series of tactful collection aids of proven effectiveness which are being used by many doctors at the present time.

Every month these collection aids are responsible for the collection of thousands of dollars from delinquent accounts, thus avoiding, in many instances, the necessity of commissioning a collection agency, thereby affording tremendous savings to the professional man.

The Richmond Bureau, celebrating over 50 years of continued service to doctors, retailers, financial institutions, and others, stands ready, as do other bureaus throughout the country, to assist our professional men in any way possible. They definitely have an important place in the medical profession

Unusual Patella Bursitis

A Case Report

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PATELLA BURSTITIS is often regarded as a minor condition. This is true, but if a patient is required to lean on his knees in connection with his occupation the condition can become quite disabling. Bursae are potential spaces which develop in connective tissue in response to functional demands. It has been reported that the subacromial bursae are present at birth. The other bursae, both superficial and deep, develop after birth. The bursae contain a small amount of synovial like fluid; just enough to permit movement of the opposing walls against each other without friction. Superficial bursae develop between the skin and the bony prominence to allow free movement of the skin over the bone. Deep bursae develop between the muscles and the moving bony parts. Mild trauma to a bursa produces no pathological changes. External violence to superficial bursae result in a tear or contusion of the bursa. Generally, hemorrhage and exudation occur. The bursa fills with serosanguineous fluid and becomes well defined, fluctuant and tender. As a rule, the acute reaction subsides and the fluid is absorbed. Some fibrin usually remains and organizes, producing thickening and roughening of the bursa wall. Adhesions between its surfaces generally occur. Quite often, this condition is called "housemaid's knees". Recurrence following repeated trauma and progression to chronic bursitis are common complications.

In sub-acute and chronic bursitis mild recurrent trauma or incomplete subsidence of acute bursitis results in rather marked fibrosis of the bursa wall. The wall thickens and trabeculae and villi fill the space. The amount of fluid in the bursa is usually increased. Calcification in long standing chronic bursitis is not uncommon. Acute exacerbations of chronic bursitis often result from very mild trauma.

The prepatella bursa lies in the subcutaneous tissue directly over the patella, and is large. It has been reported that there is a bursa below the patella overlying the patella tendon and tibial tubercle, which is called the infrapatellar bursa. This is the one usually involved in a bursitis. Because of

the position of the bursae, they are easily traumatized, especially by persistent kneeling. The symptoms are usually characterized by local pain, prominent swelling over the patella due to thickening of its wall, and effusion into the bursa. The fluid is bloody if the bursa has been recently traumatized. It is serosanguineous if the effusion is of longer duration.

The differential diagnosis should include gout, lues, fracture of the patella and acute arthritis of the knee. In treating this condition, excision of the bursa is the treatment of choice if it is chronic, long standing and symptomatic. Immobilization, aspiration and injection of Hydrocortone are useful methods in the acute episode. If there is infection present rest, heat and antibiotics are used. Incision and drainage may be required.

Recently, a case came under our care which we felt worthy of presentation since it was so large and the operation was quite interesting. The patient, A.B., age fifty-nine years, was admitted to the hospital on March 26, 1956. His chief complaint was "There is a lump on the side of my lame leg." This fifty-nine year old colored male had a midtibial amputation in 1915 following an accident. Since that time he had done river work, such as oystering and crabbing. He never wore a prosthesis, but used crutches. During his work he was in the habit of kneeling on the right knee against the gunwale of the boat. He had no difficulty until about three years ago when he noticed a fluctuant mass over his right knee. This did not bother him much until it had enlarged in size so that it was hard for him to kneel. On occasion he did have pain which would bother him a few days, and would then subside. He gave a history of some weight loss for the past six months. His systemic review was normal.

The examination was confined to the patient's right knee. There was a healed, non-tender amputation stump at the middle one-third area of the right tibia and fibula. Beginning just above the stump on the anterior medial side was a large mass which was hard and non-tender, extending upward over the patella and involving the entire distal thigh

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anteriorly. The mass became softer and more fluctuant as one approached the superior border. This mass was not hot to palpation. It was more movable over and above the patella. Nodes were palpable in the right inguinal region. These were firm, non-tender and mobile. There were fewer nodes palpable in the left inguinal region. (Fig. 1)

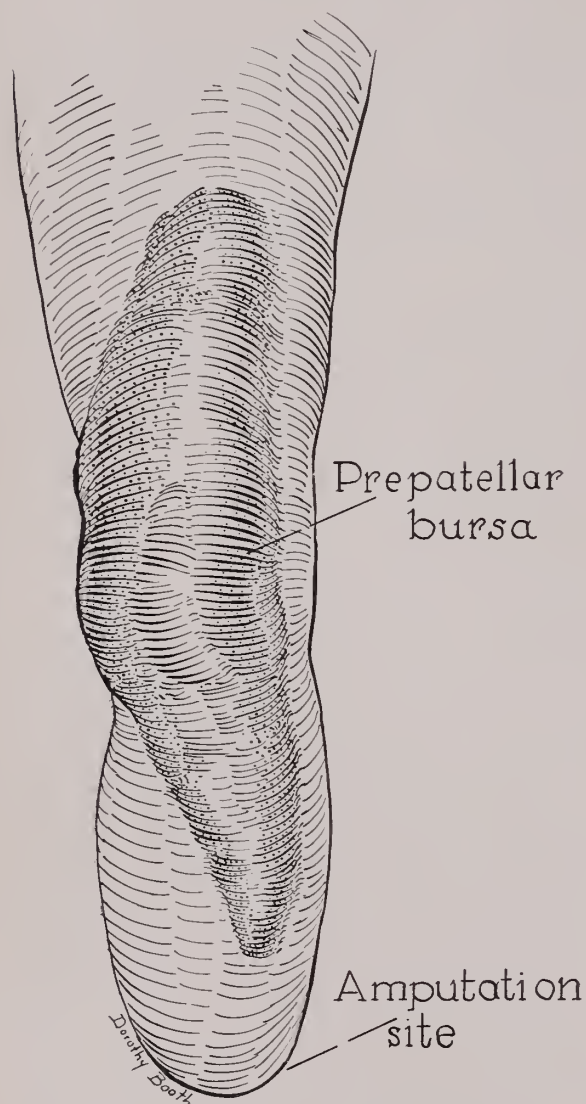


Fig. 1.—Large bursa overlying right patella.

X-rays of the right knee revealed diffuse osteoporosis. There was no evidence of bony involvement about the knee. No gross calcifications were present. X-rays of the chest did not reveal metastatic lesions.

Laboratory studies were as follows: The blood calcium was 9.8 mgms. per cent; blood phosphorus was 3.6 mgms. per cent; alkaline phosphatase was 1.0 B.L. units; hemoglobin was 13.3 gms. per cent; white blood count was 5,500 per cu. mm., with nor-

mal differential. The urinalysis was normal.

The patient was operated upon on March 29, 1956. The operation was as follows.

After satisfactory general anesthesia with the patient in the supine position, the entire right leg from mid thigh down was prepped and draped in the usual manner. A curved anterolateral incision was made above the patella and extending approximately seven inches below the patella. The subcutaneous tissues were divided in a line similar to the incisional wound. The dissection was begun at the superior pole of the lesion and performed in a sharp and dull fashion. During the entire procedure the bleeding points were clamped and ligated with #00 plain catgut. Care was taken during the dissection around the patella in order to preserve the anticipated pedicle of the cyst, which was at this time felt to be more likely from the synovial cavity. However, no pedicle was found. The dense fibrous tissue increased in quantity as the dissection was carried distalward. When the dissection reached the anterior tibial tubercle level, inadvertently the cystic mass was entered into, and a large amount of thick, chocolate colored material was expressed, including solid matter which resembled old organized blood clot. Also at this level the cystic mass seemed to be attached to the periosteum on the lateral surface of the proximal tibia, so much so that its removal could only be performed after the involved periosteum was stripped with a periosteal elevator. Following complete removal of the tumor mass, 30 cc. of a dilute solution of methylene blue was injected into the knee joint proper. Despite many attempts, none of the solution could be expressed from the joint; therefore, we must assume that this cystic mass had no connection with the synovial pouch of the knee joint. Approximately two-thirds of the fluid injected into the knee joint was removed.

After careful inspection for bleeding points, a portion of excess skin was removed from the medial skin flap. The lateral skin flap was sutured to the periosteum over the anterior tibial crest as well as possible. The small dead space beneath this region caused by the excision of the tumor was drained by means of a large Penrose drain. The proximal end of this drain was brought out on the lateral surface above the patella through a small stab wound. The subcutaneous tissue was closed with interrupted sutures of #00 plain catgut, and the skin was closed with interrupted vertical mattress sutures of black silk #000. (Fig. 2)

After application of a dry, sterile dressing, the

entire leg from groin down was wrapped with a pressure type dressing. The patient withstood the operative procedure quite well, receiving 500 cc. of whole blood on the operating table. No tourniquet was used. He was returned to his room in good condition. The drain was removed from the wound forty-eight hours following the operation.



Fig. 2.—Bursa appears after incising skin to be large with a thick leathery covering.

Gross description revealed the specimen to be a cyst of the right leg, consisting of a large, elongated, thick leathery cystic structure measuring approximately 38 cm. in length and 11 to 13.5 cm. in circumference. It was told the specimen was attached to the periosteum of the tibia but did not appear to communicate with the knee joint. The specimen had been previously opened before reaching the laboratory and showed thick walled three cystic structures, two of which communicated with each other, and the other one did not communicate with the others. The cystic spaces were covered by a thick layer of red friable blood clot. The middle cyst was filled with a large blood clot, measuring approximately 7 cm. in diameter. The cystic wall was quite thick and measured 2 to 6 mm. in thickness. (Fig. 3 and Fig. 4)

The microscopic description revealed that the



Fig. 3.—Large patella bursa after removal.

cystic wall consisted of a thick layer of hyalinized fibrous connective tissue in greater portion and partially of young scar tissue of proliferated fibrocytes and fibroblasts. One surface of the cystic wall was



Fig. 4.—The bursa sac has been incised showing old clotted blood. No calcifications were present.

covered by a thick and irregular layer of old blood clot. There were scattered collection of hemosiderin laden macrophages, foci of hemorrhage, and occasional remnants of skeletal muscle fibers in the cystic wall. No lining epithelium was present throughout the cystic wall. The reticulum stain failed to reveal the laminated layer of reticulum fibers of the blood vessels. (Fig. 5)

This patient was last seen on May 16, 1956. He has returned to his occupation as a boatman. I do

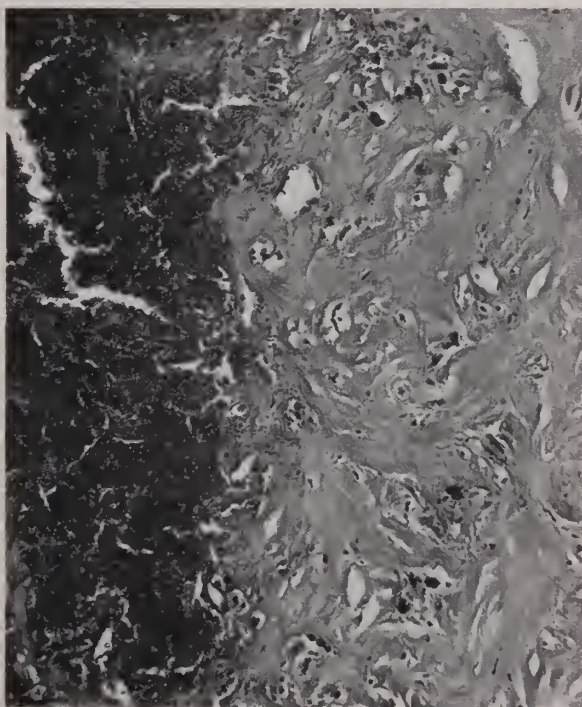


Fig. 5.—Low power showing hemorrhage and thick hyalinized fibrous covering.

not feel that this man will do well with a prosthesis since he has gotten along for so many years with the amputation stump. He has been advised now to wear a pad over his right knee so that little pressure will be exerted on the knee when he kneels.

In conclusion, a brief description of prepatella bursitis is presented with an interesting case report. The patient was operated upon and a very large

patella bursa was removed from the area of his right knee.

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Congenital Syphilis Rate

There is little chance that a baby will be born with congenital syphilis if his syphilitic mother previously has had at least one adequate course of treatment for the disease.

Dr. Nels A. Nelson and Virginia R. Struve, R.N., Baltimore, reported on 1,220 children of 423 syphilitic mothers in the June 30 *Journal of the American Medical Association*. The researchers had conclusive data on 995 of the children. They found no cases of congenital syphilis among 654 infants born of infected mothers who had had at least one full course of treatment before delivery and who had had no relapses or reinfections. The authors defined course of treatment as "the amount of treatment that was held to be desirable at the time the mother was treated."

A full course of treatment was as effective in preventing infection in the infant when it was given one month before delivery as when it was given 24 months before. Type of treatment, whether arsenical, penicillin, bismuth, or a combination of these, also made no difference in the effectiveness, provided a full course was given.

Among 199 children of syphilitic mothers who had not been treated, there was an infection rate of 13.4

per cent, while among 142 children born to diseased mothers who had had less than one course of treatment, the rate was 5.8 per cent.

Time itself may reduce the occurrence of congenital syphilis in infants of even those syphilitic mothers who have had no treatment for the disease, they said. However, among 130 first-born children of untreated mothers, 21 had congenital syphilis, a rate of 16.2 per cent. There were 252 first-born children in families of mothers who had one or more courses of treatment before any of their children were born. None of these children had congenital syphilis.

Dr. Nelson and Miss Struve said that if a child showed no signs of syphilis by the age of three months, he was considered to be free of the disease. They never found a case in an older child who had not shown signs at the age of three months. They also said that if a mother has congenital syphilis it is extremely unlikely that her children will have congenital infections.

Dr. Nelson is director of the bureau of venereal diseases and Miss Struve is supervisor of public health nursing of the Baltimore City Health Department.

North American Pit Vipers

Bacterial Flora of the Mouths and Venom Glands

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POISONOUS SNAKEBITES constitute a serious public health problem throughout the world. Do Amaral¹ believes 40,000 to 50,000 humans succumb annually throughout the world from snakebite accidents. Here in the United States it has been estimated that there are 2,000 to 3,000 poisonous snakebites per year.²

Overwhelming bacterial infections secondary to snakebite wounds frequently produce morbidity and mortality when the venom alone would not have been sufficiently toxic to do so. Jackson³ has reported the presence of gas gangrene organisms in snakes' mouths and in snakebite wounds. Kellaway⁴ demonstrated spore-forming organisms in dried snake venom and suggested they may be present in snakes' mouths and venom glands. Andrews and Pollard⁵ recommend the routine use of tetanus antitoxin, or toxoid for individuals previously immunized against tetanus, after snakebite wounds.

The purpose of this study was to identify the bacterial flora of the mouths and venom glands of the poisonous snakes of the United States in an effort to determine the role bacteria may play in the pathogenesis of snake venom poisoning. With the exception of the coral snake, all of the poisonous snakes in this country are pit vipers (rattlesnakes, copperhead or highland moccasins, and cottonmouth or water moccasins). The venom of pit vipers is primarily a hemotoxin, whereas that of coral snakes is primarily a neurotoxin.

Poisonous snakebite wounds have been described as contaminated, venom-laden, anaerobic puncture wounds, which predispose to infection and tissue destruction.⁶

Fidler and co-workers⁷ reported extensive hemor-

rhagic necrosis and tissue destruction surrounding the site where snake venom is injected. The necrotic tissue, edema fluid and blood in this area provide an excellent environment for bacterial growth.

MATERIALS AND METHODS

The snakes used in this study were furnished through the courtesy of Ross Allen's Reptile Institute, Silver Springs, Florida. Cultures were obtained from oropharynx and venom glands of 25 North American pit vipers including 11 eastern diamond-back rattlesnakes (*Crotalus adamanteus*), 4 timber rattlesnakes (*C. horridus*) and 10 cottonmouth moccasins (*Agkistrodon piscivorus*). Nineteen of the snakes had been in captivity one week or less and had been milked of their venom only once. The remaining 6 snakes had been recently captured and had not been previously milked. Except for two snakes with fang sheath infections, all of the specimens were in good condition. The snakes were housed in a large enclosed pit with a concrete floor, which was surrounded by a moat containing water.

To obtain cultures, each snake was grasped behind the head and its mouth was forced open. The oropharynx was swabbed with sterile cottontipped applicator sticks. The snake's fang sheaths were then retracted and the fangs were placed over the edge of a sterile 250 cc. pharmaceutical graduate. Five to 30 drops of venom were expressed into the graduate and a culture was taken from this material.

The venom and material from the oropharynx were inoculated on blood agar plates, in fluid thioglycollate medium (Difco) and in brain-heart infusion broth (Difco). Gram's stain preparations were made from the original swabs and venom. All cultures were returned to the laboratory for aerobic incubation at 37°C. Following forty-eight hours incubation, the thioglycollate and brain-heart infusion broth cultures were subcultured on blood agar plates and MacConkey's agar (Difco) plates and incubated aerobically at 37°C. Smears were made from the thioglycollate cultures. Those in

Read before the Snakebite Treatment Symposium sponsored by the Bowman Gray Medical Society and the Wyeth Laboratories of Radnor, Pennsylvania, August 22, 1955, Winston-Salem, N. C.

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which Gram positive bacilli were found were, in addition, subcultured on blood agar plates and incubated anaerobically at 37°C. in air atmosphere of nitrogen.

RESULTS

The bacterial flora of the mouths and venom glands of the 25 snakes studied are summarized in Table 1. The powerful hemolyzing effect of pit viper venom was observed on the original blood agar plates. Hemolysis was noted as early as fifteen minutes following inoculation of the plates with venom. All of the plates inoculated with venom showed hemolysis in sixty minutes, whereas none of the plates inoculated with material from the oropharynx showed signs of hemolysis.

All of the cultures from the oropharynx showed bacterial growth. Seven of the venom cultures, however, were sterile. Organisms were not demonstrated from either the smear or the culture media of these 7 specimens. There was no significant difference in the bacterial flora of the freshly captured snakes and those which had been in captivity for a week. The two specimens with fang sheath infections harbored essentially the same organisms as found in the healthy specimens.

The organisms found most consistently in the oropharynx were: *Proteus vulgaris* (20), *Corynebacterium-diphtheroids-sp.* (18), *Escherichia coli* (17), and *Streptococcus sp.* (10). The organisms most prevalent in the venom were: *Proteus vulgaris* (11), *Corynebacterium-diphtheroids-sp.* (8), and *Paracolon bacterium sp.* (8). *Streptococcus sp.* were seen on Gram stain preparations of 10 of the oropharynx and 5 of the venom smears; however, none of these organisms grew out on the culture media. Only one *Clostridium* organism was found in the oropharynx of one of the snakes. It was not pathogenic to man. The other organisms found in these cultures are listed in Table I.

TABLE I

BACTERIAL FLORA OF THE MOUTHS AND VENOM GLANDS OF 25 NORTH AMERICAN PIT VIPERS

Organism	Oropharynx	Gland
<i>Aerobacter aerogenes</i>	1	1
<i>Escherichia coli</i>	17	6
<i>Paracolon bacterium sp.</i>	4	8
<i>Proteus vulgaris</i>	20	11
<i>Pseudomonas aeruginosa</i>	5	3
Unidentified enteric	2	1
<i>Corynebacterium (diphtheroids) sp.</i> ..	18	8
<i>Clostridium sp.</i>	1	0
<i>Micrococcus pyogenes, var. aureus</i> ..	5	2
<i>Streptococcus sp.*</i>	10	5

* Seen on smear only

DISCUSSION

Enteric and coliform organisms were the most commonly found bacterial inhabitants of snakes' mouths and venom glands. These findings are consistent with those of Williams and his associates⁸, who investigated the bacteria of the mouth and venom glands of Australian snakes. Contrasting their study, in which numerous *Clostridium sp.* were found, we were able to demonstrate only one of these organisms which was not pathogenic to man. Twenty-eight per cent of our venom cultures showed no growth. These findings are comparable to the thirty per cent with no growth reported by Williams' group.

Since Gram negative and Gram positive rods were the predominant organisms in the snakes observed in our study, we recommend use of a wide spectrum antibiotic to control infection in treating poisonous snakebites. Snakebite wounds are contaminated puncture wounds, and although we found but one *Clostridium* organism in the oropharynx of only one snake, we do not feel we are in a position to recommend discontinuance of tetanus and gas gangrene antitoxin in treatment of snakebite.

SUMMARY

1. The bacterial flora of the mouths and venom glands of 11 eastern diamond-back rattlesnakes (*C. adamanteus*), 4 timber rattlesnakes (*C. horridus horridus*), and 10 cottonmouth moccasins (*A. piscivorus*) were studied.
2. The most commonly found organisms were: *Proteus vulgaris*, *Escherichia coli*, *Corynebacterium-diphtheroids-sp.*, *Paracolon bacterium sp.*, and *Streptococcus sp.* Twenty-eight per cent of the venom cultures were sterile.
3. Prophylactic use of a wide spectrum antibiotic is recommended in treating poisonous snakebites.

Acknowledgment

We wish to express our appreciation to Mr. Ross Allen and Mr. Warren Prince of Ross Allen's Reptile Institute and Mr. James D. Arnold, laboratory technician, for their cooperation in this study.

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Plastic Plug Replaces Tracheotomy Tube

The ungainly and uncomfortable silver tube used to maintain an airway in postpoliomyelitic patients has, in some cases, been replaced by a small inconspicuous plastic plug.

Drs. Harry J. Jacobs and John E. Affeldt, Hondo, Calif., reported in the June 30 *Journal of the American Medical Association* on use of the plug in 114 postpoliomyelitic patients. The tube or plug is used to prevent healing and closure of an artificial opening, made through the throat, allows paralytic patients to breathe.

The new plug overcomes several disadvantages of the older open silver tube. The plug is smaller and made of polyethylene plastic which does not cause a tissue reaction or leave a bad taste or odor. The plug, held in place by a chain or tape tied around the neck, facilitates neck movements. Because it

does not touch the back of the trachea, it gives some patients the feeling that air is obtained more readily.

"A beneficial cosmetic effect" from the new plug is noted among women patients. It is smaller and its color makes it less conspicuous than the silver tube. The plug can serve as a step in the weaning procedure from the tracheotomy tube to complete closure of the opening, or it may serve as a permanent replacement for the tube. One special advantage of the plug is that it reduces the number of cleanings of the opening required during the day. In addition, its removal and reinsertion is easier than that of the tube.

Drs. Jacobs and Affeldt commented that the new plug is useful in many cases, but it is not the final answer to the problem of maintaining a tracheostoma. An ideal plug should be shorter and self-retaining; a smaller button-type device with a self-retaining expansible inner portion would be advantageous.

Lateral Arterorrhaphy and Transvenous Aneurysmorrhaphy for Traumatic Carotid Aneurysm and Carotid-Jugular Arteriovenous Fistula

Report of a Case with Successful Repair

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THE FIRST RECORDED remedial surgery on an aneurysmal sac was by Antyllus when he boldly ligated the artery above and below the sac about 200 A.D. and allowed it to heal by granulation. Fifteen hundred years later Acel in 1710 tied off the artery immediately above the aneurysm without disturbing it. On June 15, 1759, an English surgeon, Mr. Hollowell was the first to repair an aneurysm by suture at the suggestion of another English surgeon, Mr. Lambert.¹ John Hunter in 1785 was the first to ligate an artery at a distance well above the aneurysm sac and this was considered "the greatest direct advance in vascular surgery by a single act of one man".¹ Rudolph Matas of New Orleans was called by Sir William Osler the modern antyllus because he came forth with the basic new principle in the treatment of aneurysm by preserving the circulation of the artery. Operating on an aneurysm of the brachial artery he found that pre- and post saccular ligatures did not control the pulsation of the aneurysm. On March 30, 1888, Matas reoperated on this patient with the intention of removing the sac. This he was not able to do because the median and ulnar nerves were so incorporated in the walls of the sac by adhesions. He then decided that the less dangerous treatment would be to close off all the visible openings within the aneurysm by a continuous suture. Thus the origin of the operation endoaneurysmorrhaphy. It was not until more than 50 years later that definitive and rapidly impressive advances were made in vascular surgery. Now the concept is always to try to restore the continuity of an injured artery rather than sacrifice it by ligation.

Factors that have made this possible are first, the unlimited availability of powerful antibiotics which

greatly reduced the hazards of infection, thrombosis and septic emboli. Second, the availability of large amounts of blood by blood bank and plasma expanders for the complete control of shock and restoration of blood volume before operation and, very important also, to provide confidence to the surgeon that any further loss of blood can be readily replaced immediately. Third, the controlled use of anticoagulants, although not always necessary. Jahnke² considers anticoagulant therapy is unnecessary and reserves it only for patients with advanced peripheral arteriosclerosis. Fourth, the availability of blood vessel grafts (homografts) obtained under surgically aseptic conditions, and plastic tubes, such as the flexible nylon Edwards Tapp tubes³ readily available in different sizes.

DeTakats⁴ in a study of vascular injuries in World War II veterans found 802 arterial injuries with arterial aneurysms in 13.1 per cent, arteriovenous fistula in 30 per cent, and both arterial and arteriovenous injury in 0.4 per cent of cases.

It is rather striking that in 1946 Elkin⁵ reported in 340 cases of arteriovenous fistulas from World War II, only 12 cases had been subjected to repair and 338 had been treated by quadruple ligation and excision of the fistula. Shumacker and Carter⁶ in their 1946 report of vascular injuries in military personnel restored the arterial continuity in only 2.7 per cent of the first 150 patients with arterial injury and in 52.7 per cent of the latter group of 55 patients. The Korean War provided an opportunity to discard the disastrous treatment of an injured artery by ligation and to apply instead the principle of immediate reconstruction and repair, a method rarely employed successfully in World War II. Major E. J. Jahnke² during a three year

period of treatment of arterial wounds at the Walter Reed Hospital in Washington during the Korean War changed to arterial repair in all major vessel injury after the first 28 cases of major lesions ligated. The next 84 arterial wounds were repaired with only three failures.

tinuity, the resulting false aneurysmal sac will communicate with both vessels and transmit blood between them, forming an arteriovenous fistula. The physiologic effects of arterial aneurysms are less complex than those of arteriovenous fistulae. With an arterial aneurysm the effects are largely confined

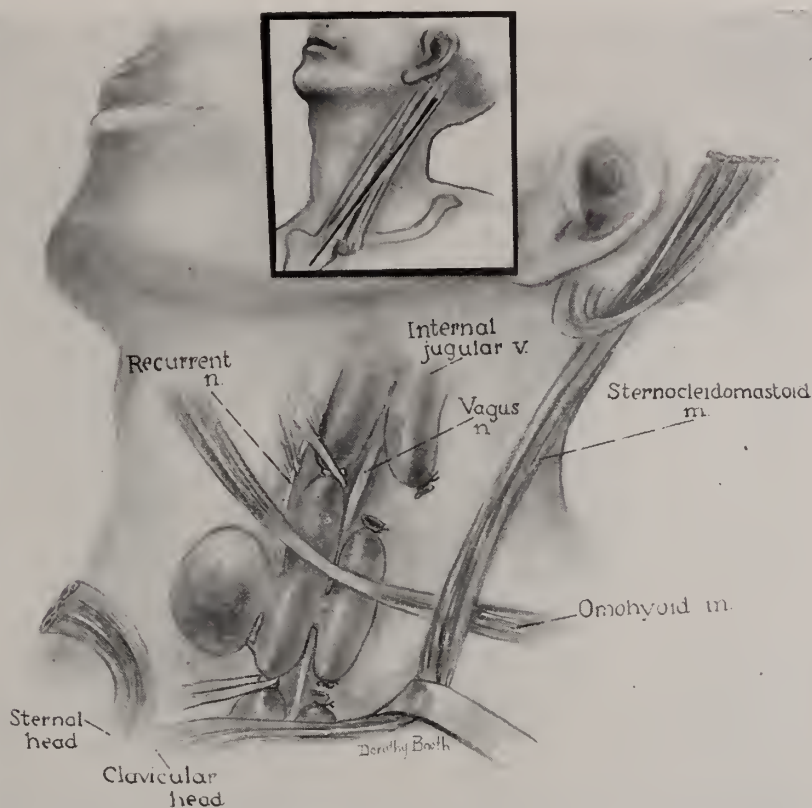


Fig. 1.—Common carotid artery aneurysm and carotid—jugular arteriovenous fistula with isolation of important structures. Umbilical tapes temporarily placed above and below level of arterial pathology.

CAUSE

The most common type of injury producing traumatic aneurysms and arteriovenous fistulae are shell fragment and bullet wounds. For that reason they are seen much more frequently in battle casualties than in injuries in civil life. The most common type in civilians are street brawl stab wounds.

MECHANISM

Extravasating blood under high pressure from a penetrating wound of an artery channels itself in the surrounding soft tissue into a compartment in continuity with the arterial lumen and containing flowing blood. This compartment is lined with scar tissue and is known as a false aneurysm in contradistinction to a true aneurysm in which the wall is composed of thinned intact arterial wall. If an artery and the adjacent vein are lacerated in con-

tinuity, the resulting false aneurysmal sac will communicate with both vessels and transmit blood between them, forming an arteriovenous fistula. The physiologic effects of arterial aneurysms are less complex than those of arteriovenous fistulae. With an arterial aneurysm the effects are largely confined to the area supplied by the injured artery.¹³ Arteriovenous fistula deserves special mention for the direct communication between the high pressure of the arterial system and the low pressure of the venous system may produce profound effects on the entire circulatory system and will cause progressive and serious decompensation within weeks or after many years depending on the rapidity of the increase in volume of blood flow through the fistula until the abnormal opening is closed or until death occurs from cardiac failure. However the cardiac decompensation is reversible if the fistula is closed in time.⁷ According to Holman^{8,9} the high pressure in the artery will force a slowly increasing volume of blood through the distensible fistula into the venous bed and thence to the heart causing a slowly progressive dilatation of that part of the circulatory bed, the short circuited blood flowing

through the artery proximal to the fistula, the fistula itself, the vein proximal to the fistula and to the four chambers of the heart. Factors determining the volume of blood flow through the fistula and thereby the extent of cardiac dilatation is dependent on the (1) location of the fistula in the relationship to the arterial tree which determines the amount of difference between the arterial and venous pressure at the site of the fistula, (2) the size of the fistulous

taneously. Furthermore according to the late Dr. I. A. Bigger¹² the fistula is the best excitant for the formation of collateral circulation. Freeman¹⁰ has pointed out that ligation of an artery proximal to the fistula alone should never be done, for then the collateral circulation will be diverted from the distal tissues back to the fistula and gangrene of the extremity will result. For the reason discussed under the mechanism of severe cardiac decompensation

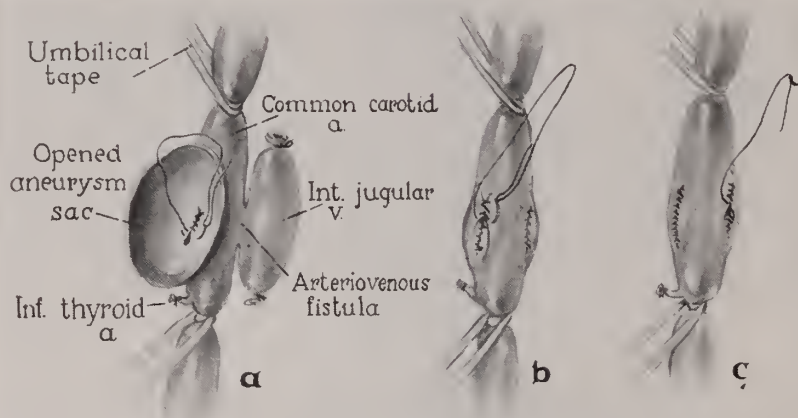


Fig. 2:

- A—First row of sutures in lateral arteriorrhaphy through all walls of common carotid artery.
- B—First row of sutures including full thickness of aneurysm sac and serosal layer of common carotid artery after excess sac has been trimmed away.
- C—Final row of reinforcing sutures of transvenous aneurysmorrhaphy in repair of the common carotid and internal jugular arteriovenous fistula including full thickness of segment of internal jugular vein.

opening, (3) the absence of fibrosis of the fistulous opening thereby permitting it to dilate under arterial pressure and (4) the duration of the fistula. Also the closer the arteriovenous fistula is to the transverse arch of the aorta the greater the arterial pressure and velocity and thereby the volume of blood flowing because of the greater peripheral resistance beyond the aortic arch. Thus an arteriovenous fistula of the neck is more apt to cause complications earlier than one in vessels of similar size further away from the heart.

TREATMENT

The treatment of choice for all vascular injuries if at all possible is restoration of continuity, as in the case cited herein. Where dissection of an aneurysm sac may be hazardous Matas endoaneurysmorrhaphy is the treatment of choice. If the restoration of arterial continuity can not be accomplished in arteriovenous fistula and the surgeon elects to do quadruple ligation with excision of the fistula, it should not be carried out earlier than three months from the date of origin of a small fistula, because some small fistulas will close spon-

from arteriovenous fistula, all such fistulae existing three months should be closed by operation. Oftentimes it is advisable to sacrifice the vein and do a transvenous closure of the fistula using the entire segment of vein as a reinforcing layer closure of the closed fistulous opening. This is particularly advantageous if the artery has two artificial traumatic openings, such as one to the aneurysm and the other to the fistula to the vein. There will be no untoward effect from the sacrifice of the vein. Before freeing up the aneurysm or fistula the main vessels should be isolated and controlled either by temporarily applied non-crushing blood vessel clamps or sterile umbilical tape. A Heparin solution may be used to irrigate the artery periodically to prevent thrombi from forming. The vessel should be occasionally moistened either with sterile normal saline or with Heparin saline solution. Probably an important maneuver is to allow blood to flow momentarily through the aneurysmal or arteriovenous opening just before the first suture is applied. Although an everting continuous suture is generally used, Holman¹¹ claims that mattress sutures continuous or interrupted will narrow the lumen of the artery.

This is particularly significant if the sutures are employed for the repair of a small vessel or placed in more than one-half of the circumference of the artery. According to Jahnke² the walls of the vessel should be brought together with tension. If mobilization is necessary to permit closure or anastomosis, it should be done without resorting to extreme flexion of joints. Otherwise subsequent extension of the joint will invariably lead to narrowing of the lumen at the site of anastomosis and ultimately to thrombosis. When the vessels cannot be united without tension the gap should be bridged by an auto- or homograft or implantation of a plastic tube.

CASE HISTORY—J. C., Medical College of Virginia (St. Philips Division), Case B-15-04-79 was a 25 year old colored male referred to the author through the kindness of his family physician, Dr. Herman Oppleman of Richmond, with the diagnosis of a traumatic aneurysm of the left carotid artery. The patient gave a history of having received a knife stab wound in the left side of his neck on the street in Hampton, where he was immediately hospitalized for 2 days and treated by suturing of the wound in the skin and supportive intravenous fluids. Less than one week after his injury the patient was admitted to St. Philips Hospital with an expanile mass in the left side of the neck about 2.5 cm. with a machine-like thrill and continuous murmur transmitted to all the vessels of the left side of the neck. Over the lower portion of the sternomastoid muscle about 4 cm. above the superior border of the left clavicle, there was a 2 cm. healing transverse wound in the left side of the neck. Repeated blood pressure examinations of the brachial artery averaged a 10 mm. difference in the systolic and diastolic pressures in both arms, being lower on the left. There was no enlargement of the heart on x-ray examination. The only symptom the patient had was a swishing in his neck at the site of the wound and a continuous feeling of blood rushing underneath the skin. The serology was flocculation positive, titer 1-2. In 1945 he had received the usual 10 day treatment for syphilis in a Rapid Treatment Center. After a few days the patient was sent home with the instruction to obliterate the aneurysm and fistula digitally on the left side of the neck three times a day for increasing periods of time. He was able to do this for at least 20 minutes at a time without symptoms. This maneuver, the author learned as a student under the late Dr. Harvey Cushing, causes early arteriovenous fistula to en-

large the capacity of the secondary channels of the collateral circulation. Six weeks after the original injury the author operated on the patient under endotracheal anaesthesia and two injuries were found in the left common carotid artery—one resulting in a false aneurysm in the medial aspect of the common carotid and the second injury on the lateral aspect at the same level communicating with the internal jugular vein by a short but comparatively wide arteriovenous fistula. The operative approach was through an oblique incision at the medial border of the sternomastoid muscle through skin and subcutaneous tissue down to the sternal notch and extending downward to the inferior border of the second left costal cartilage. The left sternomastoid muscle was split transversely part way at the junction of the upper two-thirds and the lower third involving only the entire sternal portion of the muscle. The carotid sheath was opened, and the common carotid artery was isolated above and below the pathology. A sterile umbilical tape was temporarily placed above and below the aneurysm to control the common carotid artery. In isolating the internal jugular vein, it was ruptured above the aneurysm and it was necessary to tie it off above and below the level of the aneurysm with #00 fine black silk. The adherent recurrent laryngeal and vagus nerves were dissected away from the aneurysm, isolated and protected. It was necessary to ligate and section the inferior thyroid artery because it was so intimately bound down to the aneurysm. Bleeders were controlled either with the Bovie electrocoagulating unit or with silk ties. After the aneurysm sac was completely isolated, opened and emptied of partially filled blood clot, a small opening of about 0.5 cm. was found in the medial wall of the left common carotid artery. This was closed with a continuous suture of #00000 arterial silk through the entire thickness of the wall of the artery taking very small bites. The first layer was buried by a continuous Lembert suture of #00000 arterial silk through most of the coats of the common carotid artery, again taking very small bites. This closure was reenforced by two additional layer closure of the aneurysmal sac through its entire thickness after the excess portion of the sac was trimmed away. Through the opened isolated segment of the internal jugular vein the arteriovenous opening in the lateral aspect of the common carotid artery was closed by a continuous suture of #00000 arterial silk through the coats of the common carotid artery and a second similar layer using the entire segment of internal

jugular vein contiguous with the common carotid artery at the arteriovenous (now closed) fistula and the serosal coat of the common carotid artery. Before the lateral arteriorrhaphy and also the transvenous closure, blood was allowed to flow momentarily through each of these openings. During the exposure of the vessels sterile normal saline solution was allowed to occasionally drip on the vessels.

During the operation it was necessary to occlude temporarily the common carotid artery above and below the area of pathology with sterile umbilical tape just short of twenty minutes each time on two occasions. At the end of each instance the common carotid artery showed good pulsation. No anticoagulant was used before, during or after the operation. At the end of the operation there was regular and good amplitude pulsation of the entire length of exposed common carotid artery. Ten cc. of sterile penicillin solution 2500 units to each cc. was instilled into the wound into the soft tissues. The cut portion of the sternomastoid muscle was approximated with interrupted #00 black silk. The subcutaneous tissue and skin were closed in layers with #000 black silk. A short, narrow Penrose drain inserted at the lower angle of the wound was removed in a couple of days. During the operation the patient received 500 cc. of citrated whole blood and a second 500 cc. at his bedside. The patient was returned to his bedside in good condition after a 4½ hour operation. Except for some hoarseness which seemed to improve partially while in the hospital, the patient made an uneventful recovery. The patient has been followed by his family physician for several years, his last examination being March 22, 1956, approximately three and a half years after operative repair. At his last examination Dr. Oppleman reports that the patient was asymptomatic, has fully recovered from his hoarseness (which may be compensatory) and has good pulsation through the common carotid with no recurrence of murmur or thrill.

SUMMARY

A case of concomitant traumatic common carotid aneurysm and carotid-internal jugular arteriovenous fistula due to a knife wound stabbing is reported with a good arterial operative restorative result. The author feels that had the patient not received a simultaneous wound in the internal jugular vein at the time of his injury, he might have died of profuse hemorrhage. The wound in the internal jugular vein caused an immediate arteriovenous fistula. Since the pressure in the internal jugular vein is almost zero, the blood stream found it more facile to travel into the vein as the blood left the artery than through the external wound and thereby possibly saving the patient's life.

ACKNOWLEDGMENT

The author thanks Miss Dorothy Booth of the Visual Education Department of the Medical College of Virginia for the medical illustrations of the cases reported.

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1817 Monument Avenue
Richmond, Virginia

Current Currents

THE CONFERENCE ON THE AGING AND THE CHRONICALLY ILL has been re-scheduled for November 8. Originally scheduled for November 15, the change was necessitated by a conflict with several national meetings.

The Conference will be the first of its kind ever held in Virginia, and will feature many of the Nation's outstanding authorities on the subject. Of particular interest to physicians will be those parts of the program dealing with the medical, economic and community aspects of the problem.

Remember—the date is November 8 and the place Richmond's Hotel John Marshall.

THE PROGRAM of the 1956 Annual Meeting appears in this issue, and members are urged to give it careful study. It represents a real effort on the part of the Program Committee to arrange sessions of interest and value to every physician.

INCOME TAX DEDUCTIONS may now be taken for postgraduate refresher courses, according to a regulation recently issued by U. S. Internal Revenue Service.

The regulation, which went into effect August 9, provides that expenditures for education are deductible if they are for a "refresher", or similar type of course, taken to maintain skills directly and immediately required by the physician in his employment or business. An educational course, to be covered, should be designed for established medical practitioners to help them keep abreast of current developments in the profession. The course should be of short duration, should not be on a continuing basis and should not carry academic credit. Education designed to prepare the practitioner to enter a specialty will not be acceptable.

When a physician travels away from home primarily to obtain "refresher" education, his expenditures for travel, meals and lodging are deductible. However, expenses for personal activities such as sightseeing, entertainment, etc., will not be allowed.

A STUDY OF 1956 MEDICAL SOCIETY DUES has recently been completed by the Michigan State Medical Society. The study shows that the average American physician pays between \$50 and \$60 per year state association dues. His component society dues range between \$20 and \$70 depending upon whether the society maintains an executive office.

CONTRIBUTE NOW TO THE AMERICAN MEDICAL EDUCATION
FOUNDATION

DR. ELMER HESS, immediate past-president of the AMA, had this to say about medical society responsibilities:

"Since the county unit is the area in which medical authority lives, it becomes increasingly necessary for every physician to take an active part in the affairs of the county society. If you are absent when an important decision is being made then whether you like it or not you are voting in the affirmative every time your group makes a decision. Since action at the local level is so important it is urged that a more definite effort be made to stimulate not only attendance at the meetings but also reading of 'The Journal of the American Medical Association'. In 'The Journal' every week there is a summation of all of our activities. It will pay large dividends for us, no matter how busy we are, to keep abreast of our affairs."

WHEN YOU ATTEND THE ANNUAL MEETING, be sure and let your patients know where you are. This year, The Medical Society of Virginia is making it easier for its members to explain their absence. A gummed sticker, 5 1/2 x 3 1/2 inches will be mailed with each official program. It reads, "Dr. _____ is attending the scientific sessions of THE MEDICAL SOCIETY OF VIRGINIA to view the latest techniques, observe new equipment, evaluate the results of medical research, and broaden his medical knowledge in every way to better serve you."

PHYSICIANS DESIRING ASSISTANCE from the Revolving Assistance Fund of the Sears-Roebuck Foundation to establish a practice, or improve their medical facilities, in an area where medical care is inadequate, should apply prior to October 1. Applications received before this time will be acted upon by December 15. They should be sent to Director, Sears-Roebuck Board, 675 Ponce de Leon Avenue, Atlanta, Georgia.

DR. LEROY E. BURNEY, former Indiana Commissioner of Health, has become the eighth Surgeon General of the Public Health Service, succeeding Dr. Leonard A. Scheele.

Dr. Burney was appointed by President Eisenhower for a four-year term, and is subject to confirmation by the 85th Congress when it convenes in January.

A LAST REMINDER that the County Society Officers' Conference will be held in Lynchburg on Saturday, September 15. Plan to be on hand if at all possible, but make sure that your Society is represented. This is a "must" for officers and committee chairmen of component societies. Where else can you find such speakers as William McGrath, Employer's Delegate to ILO; Chuck Davey, former contender for the welterweight crown and now with the Prudential Insurance Company of America; John O. Moore, Director, Cornell University Crash Injury Research Project; William Kennard, Assistant Director, AMA Washington Office, and Mason Connell, Life Insurers Conference.

Pyridoxine (Vitamin B₆) In Alcoholism

GERALD W. ATKINSON, M.D.
WILLIAM C. KAPPES, Jr., M.D.
Richmond, Virginia

PYRIDOXINE (Vitamin B₆)^{10,13,14} has been advocated in the treatment of alcoholic intoxication in humans.^{2,4,5,6,7,8,9} The number of cases reported in the literature totals less than 30. The clinical cases reporting beneficial effects have been studied without controls. These reporting no effective results^{1,3,16} utilized control studies but the number of cases was limited.

The use of B₆ in experimental alcohol toxicity in mice is reported by Gruber.³ The evidence on the basis of these animal studies has been against the use of the drug in alcoholic intoxication, indicating that it has either been ineffectual or contraindicated as being dangerous in large doses.³

Therefore, it seemed necessary that the value of Vitamin B₆ in the treatment of alcoholism, with and without psychosis, be studied with control cases. The results of this study we wish to report.

PLAN OF STUDY

Seventy cases of alcoholic intoxication were used without selection. Vitamin B₆ (Pyridoxine hydrochloride), 500 mgm, was given twice a day to thirty-five cases and thirty-five cases were used as controls. All received 5% glucose with one ampule of multivitamins in each 1000 cc; dilantin, 100 mgm t.i.d., and paraldehyde, 10-20 cc if necessary at night.

The clinical information for these cases was obtained from direct observation and nursing notes. These are summarized in Tables I and II. In an effort to simplify and standardize the evaluation of the general condition of these cases on admission, the following classification of Kaye¹⁸ is used:

Class I-blood alcohol 0-0.10 Gm% Dry and Decent—Subclinical—Normal by ordinary observations, slight changes detectable in special tests.

Class II-0.10-0.20 Gm%—Delighted and Devilish Emotional Instability—Decreased inhibitions, slight muscular incoordination, slowing of responses.

Class III-0.15-0.30 Gm%—Dizzy and Delirious—Confusion—Disturbance of sensation, decreased pain sensation, staggering gait, slurred speech.

EDITOR'S NOTE: This was a Senior Medical Students Research Project of The Medical College of Virginia and the study was made at the Tucker Hospital.

Dr. Atkinson is now serving an internship at De Paul Hospital, Norfolk, and Dr. Karnes at Duke Hospital, Durham, N. C.

Class IV-0.25-0.40 Gm%—Dazed and Dejected—Stupor—Marked decrease in response to stimuli, muscular incoordination approaching paralysis, complete unconsciousness.

Class V-0.35-0.50 Gm%—Dead Drunk—Coma—Complete unconsciousness, depressed reflexes subnormal temperature, anesthesia, impairment of circulation.

Class VI-0.45 Gm% or above—Death.

In 13 cases with B₆ and 7 cases without, blood alcohol levels were determined on admission and at 3,6,9 and 12 hours after admission, utilizing the method used by the Chief Medical Examiner of Virginia.¹⁷ These values and the calculated average rates of alcohol excretion per hour are summarized in Tables III and IV.

TABLE I

	Receiving B ₆	Without B ₆
Average age -----	45.5	49.8
Average years of alcoholism ----	13.4	13.7
Average duration of present episode in days -----	27.2	17.0
Average duration of signs and symptoms in hours -----	43.7	37.7
Average amount of I.V. fluids in liters received -----	4.5	3.2
Average days in hospital ----	8.7	6.4
Total number with psychosis in hospital -----	5	1
Total number that convulsed in hospital -----	8	1
Total number with liver enlargement (2 to + fingerbreadths) -----	15	13
Summary of Clinical Results.		

TABLE II

Class	Without B ₆	With B ₆
I -----	1	0
II -----	23	23
III -----	10	8
IV -----	1	1
V -----	0	3

Summary of general condition of patients according to classification listed on page 2.

RESULTS

A summary of the clinical results is presented in Tables I & II. The average age and the average years of alcoholism prior to admission are recorded and are similar. There is a 10 day difference in the average duration of the episode of drinking prior to the present admission. Those cases receiving B₆

Pt. #	BLOOD ALCOHOL LEVELS—WITH VITAMIN B ₆					
	Level in Grams %					Rate of Excretion Gm %/hr.
	Adm.	3 hrs.	6 hrs.	9 hrs.	12 hrs.	
1	.30—	.27	.19	.14	.05	.024
3	.19	.13	.07	.01	---	.021
4	.19	.12	.06	.00	---	.020
8	.15	.07—	.00	---	---	.025
9	.30—	.30—	.29	.22	.11	.027
11	.20	.14	.09	.01	.00	.020
12	.18	.11	.04	.00	---	.022
17	.17	.09	.04	.00	--	.022
18	.24	.18	.11	.05	.00	.021
19	.22	.15	.08	.01	.00	.023
20	.29	.22	.15	.08	.01	.024
21	.22	.16	.09	.02	.00	.022
					Average	.0226

Pt. #	BLOOD ALCOHOL LEVELS—WITHOUT B ₆					
	Level in Grams %					Rate of Excretion Gm %/hr.
	Adm.	3 hrs.	6 hrs.	9 hrs.	12 hrs.	
2	.18	.11	.04	.00	--	.023
5	.28	.20	.14	.07	.01	.022
6	.30—	.30	.22	.16	.09	.027
13	.26	.17	.08	.00	---	.030
14	.19	.13	.07	.01	.00	.020
15	.22	.16	.11	.03	.00	.020
16	.29	.23	.16	.10	.04	.021
					Average	.0231

have the longer duration. The average duration of signs and symptoms are reported in hours and are believed to differ insignificantly. The average amount of I.V. fluids in liters of fluid received is similar. There is a 2 day difference between the group treated with B₆ and the group not treated with B₆ in terms of total hospitalization. The cases were selected at random and this difference is fortuitous. The longer duration of stay of the B₆-treated group was not due to slower recovery but to reasons other than intoxication and physical difficulties.

The total number of cases with psychosis and the total number of cases with convulsions being greater in the group receiving B₆ may in part be explained on the longer duration of alcohol intake prior to admission. The number of patients with liver enlargement was slightly greater in the B₆-treated group. All cases with liver enlargement were measured as being 2-4 fingerbreadths below the right costal margin. On admission each group of patients was classified according to the classification of Kaye.¹⁸ There was a similar number in each group in each classification.

Tables III and IV showed 13 cases receiving B₆

and 7 controls. The average rate of excretion of blood alcohol is essentially the same, regardless of the treatment and parallels the excretion rates found by Kaye and Haag.¹⁷

DISCUSSION

A group of 70 alcoholic intoxicated cases is reported. There are 35 cases treated with B₆ and 35 cases used as controls. A remarkable effectiveness of B₆ in the treatment of alcoholic intoxication, alcoholic psychoses and convulsions has been reported by several authors.^{2,4,5,6,7,8,9,10,12}

Wordsworth⁶ in a series of six cases of typical drunkenness reports excellent results with 100 mgm of pyridoxine. These cases were sober three minutes after the injection of B₆. The drug is implied to be a specific antidote to alcohol.

Palmer⁴ reports results with larger doses in three cases. One case of acute intoxication was sober minutes after the I.V. injection of 50 mgm. Another completely recovered from physical and mental symptoms of delirium tremens two or three hours after infusion of 500 mgm of pyridoxine in 500 cc of 5% glucose. A chronic alcoholic, who had consumed a quart of whiskey per day for several years and abstained for four days, became delirious and unconscious. He became rational and quiet 3 hours after the I.V. injection of 1000 mgm of B₆ in glucose solution.

Martensen and Larsen⁵ treated alcoholism with pyridoxine in combination with fructose, in the form of honey. It was stated to be effective only in cases of excitation, with the effect wearing off in about an hour. Feldman and Zucker⁷ reported good results in the use of pyridoxine in combination with other drugs for post-alcoholic nausea and vomiting. Gould⁸ reports success in treating coma and related drug-induced toxic states with intravenous B₆.

Clifton² reported a violent alcoholic patient with head injuries treated with 100 mgm of B₆ intravenously and recovering 8 minutes later, becoming quiet and coherent.

The rapid recovery and response to Vitamin B₆ as shown by the above authors could not be substantiated in our group of cases. The recovery or improvement occurred quite independently of the drug. The recovery in the control group of 35 cases was similar and identical to the recovery of the B₆-treated group of 35 cases. There was no evidence in clinical observation or in the rate of excretion of alcohol to indicate any significant effectiveness of B₆ in the treatment of alcoholic intoxication or psychoses. Our findings are similar to those reported in

the literature by Gruber³, Small¹, Berg¹⁶, and Fox¹¹.

SUMMARY

1. Seventy cases of alcoholic intoxication are studied. Thirty-five cases are treated with Vitamin B₆ and thirty-five are used as controls.
2. There was no significant difference in the recovery rate of the B₆-treated group and of the controls.
3. The excretion rate of alcohol was not altered by B₆.
4. There was no observed beneficial effect or alteration in the course of those cases with psychoses and/or convulsions.

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Typical M.D. Travels

What does the average doctor do on his vacation? According to survey results reported in the June issue of *MEDICAL ECONOMICS*, he takes three weeks off, drives 1,500 miles, and spend nearly \$1,000.

"Almost half the doctors surveyed took at least two vacations last year." "About 15 per cent took three or more." And another 15 per cent took no vacation at all.

Most vacationing doctors travel by car. Some "70 per cent covered 1,000 miles or more. More than half this group put at least 2,500 miles on the speedometer."

The biggest proportion likes to go to the seashore. Another good-sized group prefers the mountains. The M.D.s' favorite vacation areas are Florida, New England, and the Rocky Mountains.

"Fishing is far and away the favorite vacation diversion. It draws top rating from 25 per cent of the respondents. Sightseeing ranks second, followed by swimming, loafing, and golf."

The doctor has a hard time *keeping* his vacation a vacation. Many people want free medical advice. To avoid this pitfall, "almost half of all the doctors who take vacations travel incognito."

MACK I. SHANHOLTZ, M.D.
State Health Commissioner of Virginia

Rocky Mountain Spotted Fever

Rocky Mountain spotted fever is an acute infectious febrile disease which is endemic in the United States. The only known means of natural transmission to man or to lower animals is through infected ticks. The causative agent, *Rickettsia rickettsii*, is found in all stages of the tick and survives to the adult state. Infected females pass the agent to their progeny. The rickettsiae survive the winter in infected nymphs and adult ticks. Developmental forms feed on a variety of rodents and certain small carnivores and spread the infection to many of these. Adult ticks infest large wild and domestic animals. Ticks are active in early spring and summer.

Up to 1930 it was thought that Rocky Mountain spotted fever was confined to 11 states of the northwest. Field investigations of typhus in the southwestern United States pointed to the fact that persons living in the northern tier of states and urban residents vacationing in the country sometimes developed a severe disease which did not correspond entirely to the clinical picture of endemic typhus. Furthermore, a high proportion of these cases gave a history of tick bites prior to the onset of illness.

In 1930 two strains of virus, established in guinea pigs from the blood of cases occurring in rural sections of northern Virginia, were studied intensively and were found to be indistinguishable immunologically from a strain of spotted fever isolated from ticks in the Bitter Root Valley of Montana.

Table I shows the number of cases of Rocky

incidence occurs in June-July-August. The disease has been reported from all counties in the State except Bath, Bland, Floyd, Highland, and Mathews. Cases from Craig and Pulaski Counties were reported for the first time in the year 1955 and a case from Surry County first in 1956.

In Virginia the American dog tick, *Dermacentor variabilis*, also known locally as the wood tick, is probably the only vector of spotted fever. The adult males and females are oval in shape, approximately 1/2 inch in length, and brown in color. The females are darker and have a larger area of line, hairs, and other markings just behind the "head".

Diagnosis is arrived at by correlation of laboratory findings and the clinical picture. There is no single titer in either the Weil-Felix reaction or the complement fixation test that is diagnostic of Rocky Mountain spotted fever. It is highly important to obtain two or more specimens of blood from every patient, one taken as soon as spotted fever is suspected and the other between the twelfth and the fifteenth day after onset. A rising titer of agglutinins against *Proteus* OX-19 points to active rickettsial infection. The complement-fixation test has the advantage over the Weil-Felix reaction in that it is highly specific and may be used to differentiate spotted fever from typhus.

Control of vectors of spotted fever has not proved feasible. To prevent infection there are: (1) personal care and (2) vaccination. Under personal care are included avoidance of tick-infested areas, wear-

TABLE I

	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940
Reported Cases -----	6	9	23	47	45	50	54	72	50	46
Deaths -----	0	1	4	8	10	9	9	13	5	7
	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950
Reported Cases -----	33	47	56	81	99	93	67	64	101	77
Deaths -----	11	8	16	14	21	14	10	9	5	3
	1951	1952	1953	1954	1955	1956*				
Reported Cases -----	63	79	61	41	50	15				
Deaths -----	0	1	2	1	1	1				

*Through June

Mountain spotted fever reported in Virginia since 1931 and deaths for the same period.

The monthly distribution indicates that the highest

ing of clothing that will minimize the chance of tick bites, and the early removal of ticks that become attached to the body. Ticks seldom attack at once

and they seldom transfer infection until they have fed for several hours; therefore, examinations twice a day are sufficient. Remove any ticks found with small forceps or with a piece of paper held between the fingers. Wash the hands thoroughly with soap and water after handling ticks. Vaccine should be administered to those whose occupations carry them into the woods. It should be given in the spring before the advent of the tick season and should be repeated annually. It is administered subcutaneously or intramuscularly in three doses of 1 cc each or two doses of 2 cc each from 5 to 10 days apart. The vaccine usually affords full protection against relatively mild strains but is less effective against more virulent ones.

The problem of treatment of Rocky Mountain spotted fever, as well as of all other rickettsial diseases, has been essentially solved since the introduction of antibiotic drugs. There are now three antibiotics, aureomycin, chloramphenicol, and terramycin, which have proved of great value in treating

spotted fever. It is best to administer each dose of the antibiotic orally with a glassful of milk. Patients usually become afebrile in 48 to 72 hours after the initiation of therapy and the drug may be discontinued in 4 to 5 days.

MONTHLY REPORT OF BUREAU OF
COMMUNICABLE DISEASE CONTROL

	July 1956	July 1955	Jan.- July 1956	Jan.- July 1955
Brucellosis	3	4	14	19
Diphtheria	0	2	21	15
Infectious Hepatitis	21	59	308	805
Measles	852	243	23296	3556
Meningococcal infections	4	5	59	67
Meningitis (Other)	5		65	--
Polio myelitis	22	65	43	102
Rabies (In Animals)	15	18	212	248
Rocky Mt. Spotted Fever	8	15	21	31
Streptococcal Infections	198	344	3915	4798
Tularemia	4	2	16	9
Typhoid Fever	5	7	27	24

Let's Reminisce!

At a meeting of the Richmond Academy of Medicine, December 17, 1875, Stoves and Furnaces was the subject of a paper read by Dr. L. S. Joynes. After alluding to the economical advantages of heating dwellings by Latrobe stoves, etc., he stated that this mode of heating was opposed to comfort and the laws of nature. Such stoves or furnaces stop up the fire-places, and the air of the over-heated room, which must be breathed, becomes stagnant. Heated air is rarefied, proper moisture is diminished, and oxygen is less in amount than it should be. Hence respirations are quickened, while the inhalation of carbonic acid is impeded.

The old fashioned fireplaces are preferable to stoves, since they radiate heat without heating the whole mass of air in the room. Besides whatever of heated air there is passes up the chimney, thus necessitating a constant influx of purer air from outside the apartment under the doors, through the crevices, etc.

Dr. F. B. Watkins thought that Dr. J. had failed to establish his principle proposition. If the furnace sends a constant blast of hot air into the room, some of the air must escape, and thus enforce ventilation. But whatever be the objection to stoves, the greater objection to fireplaces was that they were the occasion of so much ash-dust, actually containing caustic potash, that was set afloat in the apartment. Besides, open fireplaces heat the front portion of the body while the back is chilled by the cold air of the room, thus favoring congestion.

JOSEPH E. BARRETT, M.D.

*Commissioner, Department Mental Hygiene
and Hospitals*

How the Guidance Center Benefits Our Community

Your Program Chairman suggested that we consider this evening, How the Guidance Center Benefits your Community, and I must admit that my immediate reaction was to ask YOU that question, as it would be presumptuous for a representative from one of the professions in your clinic, namely that of social case work, who lives in a neighboring community, to attempt to give you that answer. I debated asking various key persons in my town how they thought our clinic benefited our community, but that might be most embarrassing either to the enquirer or the person asked. So let us consider this question together historically and currently, culturally and scientifically. Where do we seem to be in this year of Our Lord of 1955? You will note the use of the word "seem" as it would be folly to imply any definitive thoughts on these subjects. If periodically I seem far from clear, it is because relationships of human beings are usually composed of shades of gray and seldom black and white, whether the relationship is on a one to one basis or group to group.

Let us establish a semantic base of departure in our thinking.

A community is defined by Webster as:

"A body of people having common organization or interests, or living in the same place under the same laws and regulations."

This definition includes your clinic personnel as part of your community, and by the incorporation of persons with specialized skills in three professions there came about a change in the community configuration. But what was this change? Thirty-five years ago there were established for the first time five demonstration child guidance clinics, financed by the Rockefeller Foundation in five different geographical areas. At that time, in 1920, communities were not clamoring for child guidance clinics as they are today. The All Purpose clinics, of which yours is one, is an out-growth of World

War II. Shortage of trained professional personnel for these clinics and mental hospitals was highlighted at a meeting of the Southern Regional Commission on Mental Health, Training and Research on June 24-26 and July 21-24, 1954, in Atlanta. The number of psychiatric social workers employed in hospitals, clinics, and other agencies was 468. The estimated needs for psychiatric social workers in the 16 Southern states is 2130—this is according to American Psychiatric Association standards of one to 20,000 population. This means that as of the summer of 1954 there was a shortage of 1666 psychiatric social workers in the South. There are equal shortages in the two allied professions of clinical psychiatry and psychology.

But let us return to our semantic base. The verb "benefit" is the past participle of the Latin verb *facere*, "to do", and means "an act of kindness". Let us consider when an act is "one of kindness". Not so many years ago, to punish a child by whipping was considered an act of kindness. Some of you may remember that concomitantly with the act the adult said, "this hurts me more than it does you", implying great sacrifice on the part of the adult for the benefit of the child. Scientific discoveries in the field of psychiatry and psychology have proven that it was not an act of kindness for the one spanked. Could it have been for the benefit of the spanker, who in that manner released his own inner tensions? If so, the benefit is indeed one-sided. We also know now through past research that certain types of disturbed children will provoke spanking, and when the act is performed the adult deepens the emotional disturbance. There are other methods of discipline with less harmful emotional results.

In spite of the shortages in the clinical fields—to wit, child psychiatry, psychology, and psychiatric social work—you have established an All Purpose Mental Hygiene Clinic in your community. It is of benefit to your community to enable the clinic personnel to discharge their energies in the areas of their particular competence. As the community consists of people, so does the clinic. There will be multiple demands made by many persons seeking help, some of which will be well within the function

Contributed by JANE M. HASHAGEN, *Psychiatric Social Worker, Children's Service Center of Charlottesville and Albemarle County, Inc., Charlottesville*. Paper presented at the 1956 annual meeting of the Lynchburg Guidance Center.

of one of the three disciplines represented, and some of which will not. Each one in the clinic knows his specific limits and areas of competence. There is a large area in which there may be question, as the "doing" or benefit is a two-way process dependent upon inter-personal relationships which may or may not be possible of establishment. The adult who is emotionally disturbed for one of a group of reasons, or the mother who wishes treatment for an unhappy child, may or may not be able to enter into a treatment relationship. I am reminded of a very irate mother who was referred to our clinic by a physician as her boy had a type of asthma the physician believed could be resolved through psychotherapy. The mother was in a towering rage at being referred. According to the mother, the trouble was that the nurses in the hospital had misinformed the doctor about the boy's behavior while hospitalized, and she obviously could not enter into a treatment relationship predicated upon accepting the fact that he needed treatment in a child guidance clinic. So for her, and, sad to relate, the child, the clinic was of no benefit. As indicated, clinicians are people. There is no magic formula or wand to wave. The treatment process is inter-personal, and not a one-way street. The converse of this little episode is more often true than the unfortunate example given. The majority of parents who seek help around a child's behavior are anxious, and often feel very guilty when they come to the clinic. There is a sense of failure in parenthood. Some relief of anxiety is possible in the first interview after they have taken that first step into the clinic door. The very fact that there are professional people in the community to whom they may turn, who will not censure and will understand how hard they have tried, in and of itself is therapeutic. Recently a mother who was a college graduate and had a child born rather later in life than is usual came in to the clinic about her five year old boy—referred in by a Play School teacher, who had written a report of his behavior. Two years previously a Play School teacher had told her that she and the father were too strict. So they had gone to the other extreme. The present teacher said they were too lax. What should they do? Needless to say, no recommendations were made in the first interview, but she poured out her heart in telling of her efforts to be a good mother. When we considered the information at the staff conference, it was unanimously agreed that she had a normal five year old boy. When she was offered an appointment to come in with her husband so we could share with them our thinking, she said that

the child no longer presented a problem to them. What do you think happened in this one interview? Do you think it was a beneficial community service?

There is much confused thinking about mental hygiene clinics, which may be partially cleared for us by quoting Dr. Ackerman, who writes:

"It is now common knowledge that the grandiose promises and aspirations of earlier mental hygiene propaganda acted as a boomerang. There has been an inevitable reaction against 'over-selling' of the movement. This inevitable disillusionment was one unfortunate product of early missionary activity within the field of mental hygiene. Despite this disillusionment however, one fundamental point is worth reiterating; that true mental hygiene ideology cannot possibly be over-sold. What had been over-sold has been not the valid essence of mental hygiene principles, but rather some unreal premises which might better not have been advanced in the first place. But mistakes are the price of progress. The faulty part of mental hygiene ideology must be, and is being corrected. It must be admitted, however, that the many different, and often conflicting meanings that mental hygiene has acquired in the course of its growth led to some measure of failure to fulfill promises and to some degree of confusion."

It seems that one reason for the confusion referred to is that mental hygiene as an applied science has been mixed up in the minds of many with a social movement promising a full and better life. In our culture we constantly seek a formula which may be applied. We have done this very successfully in science. But man is not mass-produced or amenable to formulae on the same basis. Child Labor Laws and Compulsory School Attendance Laws at one time were thought to be the *sine quo non* for many problems, but now we begin to question them, as we know that in some instances the former do harm and may even be a contributing factor to juvenile delinquency. And as for the latter, the simple act of going to school creates emotional problems UNLESS the schools provide for the many physical and mental deviates who are forced to attend. Periodically one or more treatment concepts have been lifted from structured methodology of the applied science, in the effort to promote the good life and used entirely out of context by parents and educators. For example, Adler evolved a method of treatment of neurotic disturbances, part—and only part—of which was the expression of self. Some of the more so-called progressive parents and educators picked up this concept, and we had a period some

twenty years ago of complete freedom for the child. Freedom, or laissez-faire, became license, as "children must express themselves." According to reports of psychiatrists from their private practices, these children grew up into extremely neurotically disturbed individuals. Irrevocable damage may be done when fragments of a structured treatment process for the emotionally disturbed are incorporated into a social movement. Much more research is needed in the whole area of normal development of children as well as in the areas of psychopathology, and the two are not inter-changeable. Your clinical personnel know these differences and are aware of the confusions, and can help you to avoid such pitfalls. It is my belief that in these two areas involving the normal and abnormal behavior of human beings that the last word will never be said—there will always be the X factor. However, progress is being made through constant and untiring research being done in the fields of psychology, psychiatry and social work.

In the black-stock era of social work about the turn of the century, when we were more identified with the social sciences than with psychiatry, that relatively new branch of medicine, we saw to it that a family had enough beds, often in spite of the wishes of the mother. We learned that having the beds did not necessarily change the sleeping habits of the family, so we have turned to psychiatry and psychology to find out the why of our observations. We learned that feelings, both conscious and unconscious, largely control behavior. In the 1920's we studied delinquency by focusing upon the neighborhood, the economic status of the family, and demanding more recreational facilities. Slums have been cleared, we have the concept of the "living wage", and recreation facilities have popped up like dandelions in the spring. As you know only too well, the delinquency rate has steadily risen. At a recent panel discussion on this subject at the annual meeting of the Orthopsychiatric Association in Chicago some of us heard a Boston psychiatrist relate her research with 125 mothers and children, all of one category—children who aggressively and destructively "act out" their conflicts. Her research was predicated upon the research of five years by a psychiatrist at the Mayo Clinic, also regarding children who "act out" their emotional conflicts. The proof seems fairly conclusive at this time that children who act out are acting out the unresolved unconscious conflicts of the mothers. So scientific data and understanding is slowly accumulating through the painstaking efforts of research—not on a mass

basis, but of the individual who is the key unit of the masses. This data and understanding is available to your community as well as in the treatment process at your clinic. A benefit, do you think?

If this concept of the child "acting out" the unresolved unconscious conflicts of the mother is anxiety making for you, let us examine the historical background, and perhaps dilute such anxiety by establishing the fact that the unconscious is really not news, although we have tried to hide from it in various ways at various levels. Could this not be the unconscious referred to in the Bible in Romans, Chapter 7, verse 2:

"I delight in the law of God after the inward man." And yet again in Second Corinthians, Chapter 4, verses 15-18:

"For cause we faint not; but though our outward man perish, yet the inward man is renewed day by day. While we look not at the things which are seen, but at the things which are not seen: for the things which are seen are temporal; but the things which are unseen are eternal."

Alice Raphael writes: "Barely fifty years have passed since the world of the unconscious became accessible to the average layman. Von Hartman's book on the unconscious and the writings of Nietzsche and Schopenhauer had pointed the way toward a new orientation of psychological inquiry; but these inquiries were not gathered together into a whole until many lonely years of patient research on the part of Freud opened the way toward a new understanding of the nature of man. The science of the Self is our youngest science, acknowledged as an embryonic science, and perhaps, even as anthropology, it is just at the threshold of its potential development in the study of the races of man. Yet if science is a means and a way toward the understanding of phenomena, then the new psychological insight which has been won for us during the past fifty years must be considered as the contribution of the West to the science of the Self, understanding of which has been accepted upon philosophical and metaphysical grounds by the sages of the East, whose findings are drawing nearer and nearer to the empirical discoveries of our age and day."

We thought in our innocence some fifty years ago that all we needed to do for children who had lost their parents was to send them into the country, and that good clear country air, in conjunction with enough to eat and a roof over their heads, was all they needed to grow into fine strapping adults. We know now that a child in that bereft state needs more than air, food, and protection from the elements to

grow into a healthy adult. He needs that feeling of belonging in the family group, the feeling that he is free to make the mistakes of youth and still is loved, that he will be helped to control his primitive drives and urges in a manner which is acceptable to the group in which he lives. "For the things which are seen are temporal; but the things which are unseen are eternal."

And so to conclude I offer you the concept that your clinic is of benefit to you as you welcome the

members of the clinic as one of yourselves; recognizing that each one has a body of scientific knowledge by which some individuals may be helped to achieve greater integration of conscious and unconscious forces; recognizing that this is a two-way process achieved through inter-personal relationships, with no magic involved but humility in the awareness of the scant body of knowledge which through the efforts of the few is steadily increasing.

Book Announcements

Books received for review are promptly acknowledged in this column. In most cases, reviews will be published shortly after the acknowledgment of receipt. However, we assume no obligation in return for the courtesy of those sending us same.

Textbook of Urology. By VICTOR F. MARSHALL, M.D., F.A.C.S., Associate Professor of Clinical Surgery (Urology), Cornell University Medical College; Attending Surgeon-in-Charge, Urology, James Buchanan Brady Foundation of New York Hospital; etc. Paul B. Hoeber, Inc., New York. 1956. x-268 pages. Illustrated. Cloth. Price \$5.50.

Anatomy For Surgeons. Volume 2. The Thorax, Abdomen, and Pelvis. By W. HENRY HOLLINSHEAD, Ph.D., Professor of Anatomy, Mayo Foundation, University of Minnesota; Head of the Section of Anatomy, Mayo Clinic, Rochester. Paul B. Hoeber, Inc., New York. 1956. xiv-934 pages. With 1109 illustrations. Cloth. Price \$20.00.

Sports Injuries Manual. For Trainers and Coaches. By DONALD F. FEATHERSTONE, Member of the Chartered Society of Physiotherapy; Member of the Committee for Research into the Treatment of Athletic Injuries; etc. Foreword by R. Salisbury Woods, M.D., F.R.C.S. Philosophical Library, New York. 1956. 132 pages. Illustrated. Cloth. Price \$6.00.

Mr. Featherstone, a physiotherapist, has written to better enable the laymen to handle injuries associated with sports. The author recognizes the fact that trainers and coaches are primarily concerned with winning games and not treating injuries and has therefore written in a manner to make it possible for the coach or trainer to make on-the-spot diagnoses of many pathologies common to athletes, including treatment for those requiring little or no medical care. The book includes such features as basic anatomy and physiology, setting up treatment facilities, prevention of injuries, and treatment of various injuries. There is much emphasis on careful diagnosis, adequate treatment including frequent references to the need for a doctor and careful rehabilitation. While lacking in certain medical aspects, this book goes far in helping coaches and trainers to prevent, diagnose and treat many sporting injuries.

ARTHUR GINDIN

Woman's Auxiliary

President ----- Mrs. M. W. Glover, Arlington
President-Elect ----- Mrs. Lee S. Liggan, Irvington
Vice-Presidents ----- Mrs. Charles A. Easley, Danville
 Mrs. C. C. Hatfield, Saltville
 Mrs. John St. George, Portsmouth
Recording Secretary ----- Mrs. J. R. Grinels, Richmond
Corresponding Secretary Mrs. Robert Detwiler, Arlington
Treasurer ----- Mrs. William Grizzard, Petersburg
Publication Chairman
 Mrs. William J. Weaver, Alexandria

PROGRAM

of the

Thirty-fourth Annual Convention

Roanoke, Virginia

October 14-17, 1956

Headquarters—Roanoke Hotel

A cordial invitation is extended to all members of the Woman's Auxiliary to The Medical Society of Virginia, their guests, and the wives of all physicians attending the convention of The Medical Society of Virginia to participate in all social functions and attend the general meeting of the Auxiliary.

Luncheon tickets will be available at the registration desk, and reservations will close at 10 a.m. on Tuesday.

Registration Hours

Sunday, October 14, 4:00 to 8:00 p.m.

Monday, October 15, 10:00 a.m. to 4:00 p.m.

Tuesday, October 16, 9:00 a.m. to 10:00 a.m.

Please register promptly on arrival.

Committee on Local Arrangements

General Chairmen ----- Mrs. Edwin J. Palmer
 Mrs. Homer Bartley
 Registration ----- Mrs. John O. Boyd, Jr.
 Mrs. Samuel Miller
 Credentials ----- Mrs. W. A. Porter
 Mrs. M. C. Newton
 Secretary and Treasurer ----- Mrs. William H. Kaufman
 Hospitality ----- Mrs. William F. Hatcher
 Mrs. J. E. George
 Printing ----- Mrs. Philip C. Trout
 Mrs. Charles A. Young, Jr.
 Press and Publicity ----- Mrs. E. B. Neal
 Mrs. T. J. Humphries
 Decoration ----- Mrs. W. R. Whitman, Jr.
 Mrs. Algie C. Davis
 Coffee ----- Mrs. George S. Bourne
 Mrs. Harry B. Stone, Jr.
 Luncheon ----- Mrs. Edgar N. Weaver
 Mrs. Charles B. Bray, Jr.
 Golf ----- Mrs. Rufus P. Ellett, Jr.
 Mrs. Charles D. Smith
 Transportation ----- Mrs. Houston L. Bell
 Miss Jean Gill
 Mrs. A. M. Groseclose
 Invitations ----- Mrs. Richard S. Owens, Jr.
 Mrs. W. H. Saunders

Entertainment ----- Mrs. C. T. Burton
 Mrs. G. G. Gooch, III
 Pages ----- Mrs. E. L. Bagby
 Mrs. D. D. Childs
 Timekeeper ----- Mrs. C. C. Hatfield

Monday, October 15

10:00 to 11:00 a.m. A coffee hour will be held in the Pine Room for your pleasure and convenience during registration, through the courtesy of the Southwestern Virginia Medical Society

ALL DAY Golf, Roanoke Country Club (Snack Bar Open)

2:30 p.m. Pre-Convention Board Meeting, Pine Room, Presidents, Presidents-elect of County Auxiliaries. State officers, chairmen and members-at-large are expected to attend

Mrs. Mervin W. Glover, President, presiding

Tuesday, October 16

9:15 a.m. General Annual Meeting, Pine Room. All women attending the convention are cordially invited. Mrs. Mervin W. Glover, President, presiding

Invocation—Mrs. Hawes Campbell

Pledge of Loyalty

Address of Welcome—Mrs. Floyd C. Bedsaul, President of Woman's Auxiliary to Southwestern Medical Society

Response—Mrs. Raymond B. Hutchinson

Convention Announcements—Mrs. Randolph Chitwood

Roll Call—Mrs. J. R. Grinels, Recording Secretary

Minutes of Thirty-third Annual Convention—Mrs. J. R. Grinels

In Memoriam—Mrs. James King

Presentation of Honored Guests—Mrs. Robert Flanders of Manchester, N. H., President of Woman's Auxiliary to American Medical Association and Mrs. John J. O'Connell of St. Louis, Missouri, President of Woman's Auxiliary to the Southern Medical Association

President's Report—Mrs. Mervin W. Glover
Report of Officers

Reports of Chairmen of Standing Committees

Reports of Chairmen of Special Committees

Reports of County Auxiliary Presidents (limited to two minutes)

Report of Annual Convention of the Woman's Auxiliary to A.M.A. held in Chicago, June 10-14, 1956—Mrs. James Moss

Report of Registration—Mrs. John O. Boyd, Jr.

Unfinished Business

New Business

Recommendation from the Board

Report of Revisions Committee—Mrs. John R. St. George

Courtesy Resolutions—Mrs. Charles A. Easley

Report of Nominating Committee—Mrs. Lee B. Martin, Chairman

Election of Officers

Installation of Officers—Mrs. Robert Flanders

Presentation of President's Pin and Gavel—Mrs. Mer-
vin W. Glover

Past President's Pin—Mrs. Maynard Emlaw
Adjournment

Luncheon

12:30 p.m. Roanoke Country Club

Honoring invited guests of the Auxiliary, Presidents of
the Woman's Auxiliaries to American Medical Asso-
ciation and Southern Medical Association, immediate
Past President and President of Woman's Auxiliary
to The Medical Society of Virginia

Mrs. Lee S. Liggan, President, presiding

Fashion show—Samuel Spigel, Inc., of Roanoke

3:30 p.m. Post Convention Board Meeting, Hotel Roanoke
Parlors D, E and F

Wednesday, October 17

8:15 a.m. Past President's Breakfast—Virginia Room

Mrs. Maynard Emlaw, Chairman

All State officers and chairmen, County Auxiliary Presi-
dents and Presidents-elect and members-at-large are
expected to attend.

Wise County.

The Auxiliary to the Wise County Medical Society
met on April 13th. Mrs. M. W. Glover, president
of the State Auxiliary, and Mrs. L. S. Liggan, presi-
dent-elect, were guests at this meeting. Mrs. A. H.
Reeder, president of the Wise County Cancer So-
ciety, gave a talk, pointing out that the emphasis
in cancer detection is education to make the general
public cancer conscious.

Officers were elected as follows: President-elect,
Mrs. G. V. Martin; vice-president, Mrs. J. T. Phil-
lips; treasurer, Mrs. E. G. Shull; recording secretary,
Mrs. W. F. Schmidt; and corresponding secretary,
Mrs. C. H. Henderson. Mrs. H. H. Howze is the
new president.

I. V. BENE (Mrs. Eugene)
Publicity Chairman

Richmond.

At a luncheon meeting on June 5th at the home
of the president, Mrs. Carl W. Meador, the following
committee chairman were announced for the coming
year: Historian, Mrs. W. L. Ball; Parliamentarian,
Mrs. M. R. Emlaw; Bulletin, Mrs. Thomas F.
Wheeldon; Editorial, Mrs. George K. Brooks, Jr.;
Legislative, Mrs. James R. Grinels; Membership,
Mrs. George H. Snead; Program, Mrs. William P.
Morrisette; Public Relations, Mrs. William C. Barr;
Revisions, Mrs. William Cox; Today's Health, Mrs.
F. Elliott Oglesby; Civil Defense, Mrs. Thomas
Chalkley; Devotional, Mrs. Hawes Campbell; Doc-
tor's Day, Mrs. Gilmer Tyler; Drug Drive, Mrs.
Raymond C. Hooker, Jr.; Flowers, Mrs. Albert M.

Edmonds; Luncheon, Mrs. Benjamin Sheppard and
Mrs. William Moore; Mental Health, Mrs. Custis
Coleman; Nurse Recruitment, Mrs. Frank B. Trues-
dell; Personal Relations, Mrs. William Deyerle;
Research and Romance, Mrs. Charles W. Byrd; Shel-
tering Arms Advisory, Mrs. Bernard Packer; Tele-
phone, Mrs. William Eagles; Volunteer, Mrs. Reuben
F. Simms; Ways and Means, Mrs. William Moncure
and Mrs. Heth Owen; Year Book, Mrs. Thomas
Overton; and Representatives to the Richmond Coun-
cil of Women's Organizations, Mrs. William Dashiell
and Mrs. Raymond Hooker, Sr.

In addition to the president, Mrs. Meador, the
following officers were elected on May 22nd: presi-
dent-elect, Mrs. George K. Brooks, Jr.; vice-presi-
dent, Mrs. William P. Morrisette; treasurer, Mrs.
William F. Griggs, Jr.; corresponding secretary, Mrs.
Wyndham B. Blanton, Jr.; assistant corresponding
secretary, Mrs. George D. Ritchie; and recording
secretary, Mrs. Richard Baylor.

Petersburg.

The Auxiliary to the Petersburg Medical Faculty
met May 29th, with luncheon being served at the
Crater Restaurant. Mrs. William Grossmann, Nurse
Recruitment chairman, reported on a trip she and
Mrs. Herbert Jones made to the University of Vir-
ginia School of Nursing, accompanied by eleven high
school students.

The following new officers were installed: presi-
dent, Mrs. Glenn Phipps; vice-president, Mrs. Mun-
ford Yates; recording secretary, Mrs. Milton Ende;
corresponding secretary, Mrs. William Sloan; treas-
urer, Mrs. Palmore Irving; and historian, Mrs.
Thomas Pope.

Northampton-Accomac.

This Auxiliary held its summer meeting on July
10th at the cottage of Dr. and Mrs. W. C. Hender-
son at Tankard's Beach. Mrs. Holland Trower was
hostess. There was an attendance of twenty mem-
bers and four guests.

The program was in charge of the Virginia State
Police and was opened with the Motorist's prayer.
A sound film by the Ford Motor Company on "Free-
dom of the American Road" was shown. A discus-
sion of traffic problems, reckless driving and high-
way improvements followed. Sergeant Migette, State
Trooper Ross and former State Trooper Haywood
assisted in the program.

The following slate of officers for the coming
year was presented: president-elect, Mrs. Milton
Kellam; vice-president, Mrs. Edmund M. Hender-

son; secretary, Mrs. Raymond K. Brown; and president-elect for 1958, Mrs. S. K. Eskridge.

CATHERINE R. TROWER (Mrs. Holland)
Chairman, Press and Publicity

Fairfax.

The Auxiliary to the Fairfax County Society held its final meeting before the summer vacation at the Court House Country Club on May 1st. Over a hundred persons attended this bridge luncheon, the profits of which will be turned over to the Fairfax Hospital Fund. Door prizes for the benefit were donated by local merchants.

A cocktail party, dinner and dance was held in the Cloud Room at the National Airport on June 21st.

MARGARET BERNHART

Alexandria.

Officers were installed at the final spring meeting of this Auxiliary, held at the home of Mrs. Christopher Murphy. They are: president, Mrs. James B. Gilbert; vice president, Mrs. Glenn Thompson; recording secretary, Mrs. William Young, Jr.; corresponding secretary, Mrs. Robert Anderson; treasurer, Mrs. John C. Watson; and parliamentarian,

Mrs. William Weaver.

Mid-Tidewater.

The Auxiliary to the Mid-Tidewater Medical Society held its organizational meeting and luncheon at Urbanna on July 24th. Mrs. M. W. Glover, State President, and Mrs. Lee S. Liggan, President-Elect, were guests. Mrs. Glover installed the officers for the coming term: president, Mrs. Raymond S. Brown, Gloucester; president-elect, Mrs. A. L. Van Name, Urbanna; vice-president, Mrs. H. L. Shinn, Mathews; recording secretary, Mrs. Malcolm H. Harris, West Point; corresponding secretary, Mrs. G. Edward Mowry, Wicomico; and treasurer, Mrs. A. W. Lewis, Jr., Ayletts. Committee chairmen are: Nurse Recruitment, Mrs. Harry A. Tabb, Gloucester; American Medical Education Foundation, Mrs. Harold W. Felton, Deltaville; Civil Defense and Bulletin, Mrs. T. E. Smith, Hayes; Today's Health, Mrs. Thomas L. Grove, Saluda; and Membership, Mrs. Edward Lewis, Bowling Green.

The next meeting will be held at Tappahannock on October 23rd.

MRS. G. EDWARD MOWRY

Press "Top-Grade".

Dr. Elmer Hess, retiring president of the American Medical Association, called the American press "alert, responsible and top-grade."

He said in the May 26th Journal of the A.M.A. that he found newspaper reporters courteous, accurate and fair during his years as A.M.A. president-elect and president. In nearly every case the stories they wrote were accurate, objective, and interesting.

In his President's Page message to A.M.A. members, Dr. Hess asked physicians to cooperate with

local newspapers and radio and television stations in providing necessary medical facts and opinions. He urged doctors not to ignore their requests or to be too busy to talk with them.

"They are your friends, and if you are frank and honest with them, they in turn will be the same with you. Let us all remember that the press is the greatest education unit today."

He concluded with the hope that the American press may continue to be independent.

PROGRAM

109th MEETING

The Medical Society of Virginia

HOTEL ROANOKE

OCTOBER 14-17



PROGRAM

109TH MEETING

THE MEDICAL SOCIETY OF VIRGINIA

HOTEL ROANOKE

ROANOKE

OCTOBER 14, 15, 16, AND 17, 1956

Sunday, October 14

1:00 P.M.

COUNCIL

Parlor D

7:00 P.M.

House of Delegates—Dinner Meeting
Ballroom

Monday Morning, October 15

9:00 A.M.

Section A—Ballroom

JAMES P. KING, M.D., Radford, Presiding

9:00 A.M.—Welcome and Preliminary Announcements—Presiding Officer

9:05 A.M.—POSITIVE SEROLOGIC TESTS FOR SYPHILIS—TRUE OR FALSE POSITIVE REACTIONS—E. Randolph Trice, M.D., and Richard W. Fowlkes, M.D., Richmond

In private practice up to 40% of patients with positive serologic tests for syphilis may be non-syphilitic biologic false positive reactors. The serious implications of the reaction as well as clinical and laboratory methods for its detection are given.

9:25 A.M.—DIABETIC NEPHROPATHY—Gordon R. Hennigar, M.D., and William M. Patterson, M.D., Richmond

A clinical pathological study of approximately forty cases of nodular glomerulosclerosis (Kimmelstiel-Wilson lesion) analyzed from the clinical and pathological files of the Medical College of Virginia, extending over a period of twenty-five years, beginning January 1, 1930 and ending January 1, 1955. The proposed pathogenesis and development of the diabetic lesions in the kidney are discussed.

9:45 A.M.—THE ROLE OF THE SKIN IN THE EXPRESSION OF PSYCHOLOGICAL CONFLICT—Merritt W. Foster, M.D., Richmond

Presentation of theoretical material concerning the use of the skin in the expression of unconscious conflict. These theoretical aspects are further elucidated with the use of clinical material.

10:05 A.M.—THE ARTIFICIAL KIDNEY—E. Lovell Becker, M.D., and Allan M. Unger, M.D., Richmond

An "artificial kidney", of hemodialyzer is presently being used in the Department of Medicine at the Medical College of Virginia Hospital. The present indications for its use, as well as the contraindications, will be discussed. Further, representative cases showing changes in clinical state, electrocardiograms, and blood chemistries will be shown.

10:25 A.M.

Recess to visit exhibits

11:00 A.M.—PIGMENTED TUMORS OF THE EYE—W. M. Patterson, M.D., Richmond

The discussion will emphasize the diagnosis and prognosis of conjunctival and intraocular pigmented tumors based on the clinical course and pathologic picture. The value of available diagnostic techniques will be summarized. Principles of surgical management will be covered in the discussion.

11:20 A.M.—BENIGN GASTRIC LEIOMYOMA: CASE REPORTS AND REVIEW—William H. Harris, Jr., M.D., Richmond

A brief discussion of benign gastric tumors is followed by a report of two cases in each of which a solitary symptomatic ulcerated leiomyoma was removed from the stomach at operation. The clinical, pathologic, and therapeutic aspects of these common but infrequently diagnosed gastric lesions are reviewed.

11:40 A.M.—LEUKEMIA: A DISCUSSION OF CERTAIN PROBLEMS IN MANAGEMENT AND SOME NEWER ASPECTS—Charles L. Crockett, Jr., M.D., Roanoke, Byrd S. Leavell, M.D., Charlottesville, and Donald Shotton, M.D., Lynchburg

This discussion will include: Radiation as a pathogenetic factor; Mechanism of action of cases illustrating use of 6 mercaptopurine, myleran, steroids, splenectomy, etc. The pre-leukemic state and leukemoid reactions will also be discussed.

Section B—Parlors A and B

John P. Lynch, M.D., Richmond, presiding

9:00 A.M.—Welcome and Preliminary Announcements—Presiding Officer

9:05 A.M.—GENERAL CONSIDERATIONS OF OFFICE GYNECOLOGY—Bernard H. Raymond, M.D., Norfolk

A good gynecological diagnosis cannot be arrived at unless an adequate history and physical examination is performed. Symptoms of pain and bleeding have no great value unless evaluated as to nature, location, mode of onset, duration, severity and relation to all body functions. One often meets patients with symptoms of common illnesses, one or two pregnancies, who have never disrobed for a physical examination.

9:25 A.M.—EXPERIENCES WITH PATELLECTOMY AND KNEE JOINT DEBRIDEMENT—Bradford S. Bennett, M.D., Winchester

This is a presentation of both gratifying results and of complications experienced in knee joint surgery. Slides of patients x-rays and photographs of the patients are shown. Conservative treatment of the arthritic knee is discussed and all the arthritic patients were exposed to conservatism before surgery.

9:45 A.M.—URINARY TRACT COMPLICATIONS OF PELVIC SURGERY: PREVENTION AND TREATMENT—Ralph R. Landes, M.D., and Charles L. Ransom, M.D., Danville

Injury to the urinary tract is common during pelvic surgery. It is usually avoidable. Its ravages are tragic. Prevention and treatment of these injuries will be discussed and demonstrated.

10:05 A.M.—CUT-OUT BOARD FOR PARAPLEGICS—Treacy O'Hanlan, M.D., Waynesboro

The use of a "cut-out board" in the position of function, that is, sitting, for a paraplegic, is definitely advocated in all cases of paraplegia. The "cut-out board" removes the pressure from the ischial tuberosities and allows sitting to take place on the posterior aspects of the femur. When radical operation, because of ulceration of the ischial tuberosity is advised, the approach is made directly through the ulcer and the bone is removed from the lesser sciatic notch to the symphysis pubis.

10:25 A.M.

Recess to visit exhibits

11:00 A.M.—EVALUATION AND MANAGEMENT OF EXCESSIVE OPERATIVE BLEEDING—Henry G. Kupfer, M.D., Richmond

Newly opened fields of surgery demand a careful evaluation of the patient as a potential bleeder. Excessive operative bleeding may be caused most commonly by deficiencies of factors partaking in thromboplastin formation. These may be evaluated by a number of newly introduced tests. Prothrombin and accelerator deficiencies are less common unless influenced by anticoagulant therapy. Fibrinogen deficiencies are found mainly in cardiac and obstetrical patients.

11:20 A.M.—CRITERIA FOR A GOOD GASTRO-INTESTINAL TUBE—John W. Devine, M.D., and John W. Devine, Jr., M.D., Lynchburg

The criteria for a good, long, gastro-intestinal tube is one that is small and easy on the nose, that can be placed in the region of the pylorus in less than a minute, with efficient rapid decompression of the intestines with a minimum of electrolyte loss. After seven years of research, the tube that meets these requirements has been developed.

11:40 A.M.—CESAREAN DELIVERY IN A PRIVATE HOSPITAL—William Durwood Suggs, M.D., and Edwin B. Parkinson, M.D., Richmond

This is a survey of 643 cases of cesarean section at Stuart Circle Hospital. The incidence of sections, and the maternal mortality and morbidity are reviewed. Various factors affecting maternal morbidity are noted. Our results are compared with other clinics.

Monday Afternoon, October 15

2:30 P.M.

General Session—Ballroom

Walter C. Elliott, M.D., Lebanon, Presiding

2:30 P.M.—Guest Speaker—Francis J. Braceland, M.D., President, American Psychiatric Association, Hartford, Connecticut—THE FAMILY DOCTOR AND MODERN PSYCHIATRY

Panel—FUNCTIONAL AND PSYCHOMATIC DISTURBANCES ENCOUNTERED IN GENERAL PRACTICE
Thomas S. Edwards, M.D., Charlottesville,

Moderator

Francis J. Braceland, M.D., Hartford, Connecticut

Harvey B. Haag, M.D., Richmond

Edward P. Cawley, M.D., Charlottesville

John T. T. Hundley, M.D., Lynchburg

4:00 P.M.—Panel—SHOULD BLUE SHIELD PAY LARGER FEES?

Richard J. Ackart, M.D., Richmond, Moderator

5:00 P.M.—Annual Meeting of Virginia Medical Service Association

Monday Evening, October 15

8:30 P.M.

Ballroom

Call to Order—Allen Barker M.D., Roanoke, Chairman, Committee on Arrangements

Invocation

Awarding of Certificates to Members of "Fifty Year Club"

Memorial Observance—A. P. Jones, M.D., Roanoke, Chairman, Membership Committee

Address by President—James P. King, M.D., Radford

Address by Henry Viscardi, Jr., President, Abilities, Incorporated, West Hempstead, New York

Section A—Ballroom

Charles L. Savage, M.D., Waynesboro, Presiding
9:00 A.M.—TEMPORAL BONE SURGERY—A SURVEY OF A GROUP OF CASES—G. S. Fitz-Hugh, M.D., Armando Chiong, M.D., and W. C. McLean, M.D., Charlottesville

The findings of a survey of temporal bone surgery, performed at the University of Virginia Hospital over a ten-year period, are tabulated and recorded. The reasons for such a survey and some conclusions therefrom are presented.

9:20 A.M.—CARDIAC SURGERY IN INFANCY AND EARLY CHILDHOOD—Lewis H. Bosher, Jr., M.D., Richmond

Congenital cardiac lesions which are ordinarily well tolerated for a number of years may cause serious cardiac failure in the first few years of life. The recognition and surgical treatment of these lesions will be presented.

9:40 A.M.—MALIGNANT MELANOMA—Carrington Williams, Jr., M.D., Richmond

Current views regarding treatment of malignant melanomas are discussed. Particular attention is paid to the criteria of recognition of these tumors. Results of treatment of personal cases are reviewed, indicating the value of radical surgical procedures in handling melanomas.

10:00 A.M.—CARCINOMA OF THE BREAST—Guy W. Horsley, M.D., and James T. Gianoulis, M.D., Richmond

The influence of certain hormones on cancer of the breast is discussed. The treatment by radical amputation supplemented by x-ray and hormone therapy is described.

10:20 A.M.

Recess to visit exhibits

11:00 A.M.—THE DIAGNOSIS AND TREATMENT OF CERVICAL SPINE, SHOULDER, AND ARM PAIN—John M. Meridith, M.D., Charles E. Troland, M.D., and Joseph F. Kell, Jr., M.D., Richmond

Surgical lesions causing cervical spine, shoulder, arm and hand pain (especially the unilateral syndrome) are presented. Differential diagnosis is stressed, as are the diagnostic points of the individual syndromes. Lesions found at operation are described.

11:20 A.M.—AORTIC STENOSIS—J. Morrison Hutcherson, Jr., M.D., Richmond

The clinical features of aortic stenosis are presented. Aspects of the natural history of this disease, with particular reference to prognosis, are discussed. Illustrations of the radiological, electrocardiographic, and phonocardiographic findings in aortic stenosis are

given. Brachial artery pressures are presented with an evaluation of their merit. Certain data derived from exploratory surgery are cited. The problem of determining the degree of aortic stenosis and the selection of patients for aortic valve surgery is discussed.

11:40 A.M.—THE VULNERABLE MIDDLE LOBE—L. James Buis, M.D., and Dean B. Cole, M.D., Richmond

Protracted cough and symptoms of recurring or prolonged respiratory infection may be due to disease of the right middle lobe not disclosed by routine examination. Bronchial obstruction, the usual cause, is discussed along with diagnostic aids and variations in the findings.

Section B—Parlors A and B

George S. Hurt, M.D., Roanoke, Presiding

OBSTETRICAL AND GYNECOLOGICAL SYMPOSIUM

9:15 A.M.—CHORIOCARCINOMA—REPORT OF TWO CASES—Eugene S. Groseclose, M.D., Lynchburg

9:30 A.M.—CANCER OF THE ENDOMETRIUM—DIAGNOSIS AND TREATMENT—H. Hudnall Ware, Jr., M.D., Richmond

9:50 A.M.—THE EARLY DETECTION AND TREATMENT OF CANCER OF CERVIX—W. Norman Thornton, Jr., M.D., Charlottesville

10:10 A.M.

Recess to visit exhibits

10:30 A.M.—Guest Speaker—Frank R. Lock, M.D., Professor of Obstetrics and Gynecology, Bowman-Gray School of Medicine, Winston-Salem, North Carolina—THE THIRD STAGE OF LABOR—COMPLICATIONS AND MANAGEMENT

11:00 A.M.—Panel—DISCUSSIONS OF SELECTED MATERNAL DEATHS OCCURRING IN THE STATE OF VIRGINIA DURING 1955

A. Tyree Finch, M.D., Farmville, Moderator

Mason C. Andrews, M.D., Norfolk

Edwin R. Rucker, M.D., Richmond

Walter S. L. McMann, M.D., Danville

Garrett Dalton, M.D., Radford

Tuesday Afternoon, October 16

2:30 P.M.

General Session—Ballroom

John P. Lynch, M.D., Richmond, Presiding

2:30 P.M.—Symposium—CHRONIC PULMONARY DISEASES—

John Guerrant, M.D., Charlottesville, Moderator

Guest Speaker—E. E. Menefee, Jr., M.D., Associate Professor of Medicine, Duke University, Durham, North Carolina

Edward S. Ray, M.D., Richmond
George Minor, M.D., Richmond

4:00 P.M.
House of Delegates—Pine Room

6:00 P.M.
Cocktail Party—Parlors A and B

7:00 P.M.
Banquet and Entertainment—Ballroom
Installation of James D. Hagood, M.D., as President

Wednesday Morning, October 17
9:00 A.M.

Visit Exhibits

Section A—Ballroom

Walter C. Elliott, M.D., Lebanon, Presiding
9:30 A.M.—FOUR YEARS OF EXAMINATIONS FOR
INTESTINAL PARASITES AT A 1,000 BED HOSPITAL
—John G. dos Santos, Neto, M.D., Richmond

After a brief discussion of methods used, positive findings for pathogenic and non-pathogenic parasites are presented with percentages, respective age and environment of patients. Presence or absence of symptoms is commented upon. Parasitic infection from our experience appears to be at a low level.

9:50 A.M.—MENINGITIS IN CHILDREN—John D. French, M.D., Richmond

One hundred and fifty cases of bacterial meningitis admitted to the Medical College of Virginia Hospital for the past three years were reviewed. The seasonal incidence, the management, and the complications of the cases are discussed.

10:10 A.M.—DIET AND CORONARY ARTERY DISEASE—Julian R. Beckwith, M.D., Nuzhet Atuk, M.D., and J. Edwin Wood, Jr., Charlottesville

Some of the suggested causes of coronary atherosclerosis will be reviewed; in particular, the relation of this condition to lipid metabolism will be presented. This will include the effect of diet on the serum cholesterol and the possibility of improvement in coronary disease by variation of diet.

10:30 A.M.—Panel—RELATIONSHIP OF PHYSICIAN AND PRESS

Benjamin W. Rawles, Jr., M.D., Richmond,
Moderator

Guest Speaker—Charles S. Rowe, Editor,
Fredericksburg Free Lance-Star

Guest Speaker—Peyton B. Winfree, Jr., Executive Editor, News & Daily Advance, Lynchburg
Mason C. Andrews, M.D., Norfolk
John T. T. Hundley, M.D., Lynchburg

Section B—Parlors A and B

Charles L. Savage, M.D., Waynesboro, Presiding
9:30 A.M.—BRUCELLERGEN SKIN REACTION ON A
SCREENING PROCEDURE IN CHRONIC BRUCELLOSIS
—Oscar Swineford, M.D., and James C. Curry,
M.D., Charlottesville

The brucellergen skin test is a simple, effective office screening procedure in suspected chronic brucellosis. Twenty-seven cases are reviewed. A tentative diagnosis of chronic brucellosis should be made and the patient treated for it when the clinical picture is consistent and the brucellergen skin test is strongly positive, regardless of the agglutination test or blood culture.

9:50 A.M.—ROUTINE OPERATIVE CHOLANGIOGRAPHY—John L. Smoot, M.D., and C. V. Cimmino, M.D., Fredericksburg

The advantages and pitfalls of routine cholangiograph are pointed out; the surgical and x-ray techniques of these procedures are outlined, and a few illustrative x-rays will be shown.

10:10 A.M.—THE ENDOCRINE CONTROL OF ADVANCED BREAST CANCER—Vincent R. Hollander, M.D., Charlottesville

Endocrine treatment is an important method for the control of recurrent or metastatic breast cancer. In the pre-menopausal woman with recurrent breast cancer, castration is the hormonal treatment of choice. In the postmenopausal woman, castration produces remission in less than ten per cent (10%). The treatment of choice is adrenalectomy or hypophysectomy. The results of ablative procedures will be compared with testosterone and estrogen therapy.

IMPORTANT ANNOUNCEMENT

Papers to be presented on the Scientific Program will be limited to fifteen minutes. Discussion, time permitting, will be restricted to five minutes. It is requested that no one discuss the same paper more than once.

All papers are the property of The Medical Society of Virginia and following presentation should be handed the presiding officer.

SCIENTIFIC EXHIBITS

Exhibit Hall, Basement

Surgical Treatments of Lower Extremity Defects—C. C. Coleman, Jr., M.D., Charlottesville.

Reconstructive Surgery of the Head and Neck—C. C. Coleman, Jr., M.D., Charlottesville.

Dysphagia Due to Hypertrophy of the Inferior Esophageal Sphincter—James C. Respass, M. D., John T. Kroll, M.D., and Cary N. Moon, Jr., M.D., Charlottesville.

Diagnostic Bronchoscopy and Surgery—Marcellus A. Johnson, III, M.D., James G. Snead, M.D., and Charles D. Smith, M.D., Roanoke.

Dairy Councils of Richmond, Roanoke and Staunton—Mrs. Sally Anne Ellison, Richmond, Mrs. Lena Bowman, Staunton, and Mrs. Frances Hutcherson, Roanoke.

Arteriography—Harold Goodman, M.D., and Lewis H. Bosher, Jr., M.D., Richmond.

The Clinical Use of Electrophoresis—Oscar A. Thorup, Jr., M.D., and Cornelia Hoch-Ligeti, M.D., Charlottesville.

Hypophysectomy in the Treatment of Advanced Breast Cancer—Vincent Hollander, M.D., Ph.D., Gayle Crutchfield, M.D., and Juan Martinez-G., M.D., Charlottesville.

Diseases of the Facial Nerve—Francis H. McGovern, M.D., Danville and G. Slaughter Fitz-Hugh, M.D., Charlottesville.

Program of the Southwest Virginia Crippled Children's Society—Philip C. Trout, M.D., Louis P. Ripley, M.D., and Charles B. Bray, Jr., M.D., Roanoke.

Collagen Diseases—George Cooper, Jr., M.D., William H. Melton, M.D., and Edward P. Cawley, M.D., Charlottesville.

Seizure States and Pregnancy—Cary G. Suter, M.D., and Walter O. Klingman, M.D., Charlottesville.

Virginia Medical Service Association—Thomas L. Martin and Dean Grogan, Richmond.

Rehabilitation of Poliomyelitis Patients with Respiratory Involvement—Hart E. Van Riper, M.D., New York.

Planned Parenthood Clinic Locations in Virginia—John M. Nokes, M.D., Charlottesville.

Comparison of Gastro-intestinal Tubes Used for Intestinal Obstruction—J. W. Devine, M.D., and J. W. Devine, Jr., M.D., Lynchburg.

Plastic and Reconstructive Surgery—Henry T. Brobst, M.D., Roanoke.

Skeletal Lesion of Diagnostic Interest in Children—J. Hamilton Allan, M.D., Charlottesville.

Hand Injuries—Richard H. Fisher, M.D., Roanoke.

Heart Sounds on Tape—W. Ross Southward, Jr., M.D., Richmond.

Vaginal Cytology—W. Ross Southward, Jr., M.D., Richmond.

Unusual Orthopedic Problems in Regard to Diagnosis and Treatment—Allen M. Ferry, M.D., and Frederick W. Rook, M.D., Arlington.

Rheumatoid Disease—Elam C. Toone, Jr., M.D., Gordon Hennigar, M.D., and John H. Vaughan, M.D., Richmond.

Bronchspirometry—Charles F. Wingo, M.D., Richmond and J. L. Farley, Jr., M.D., Richmond.

Repair of Interatrial Septal Defects—Lewis H. Bosher, Jr., M.D., and James W. Brooks, M.D., Richmond.

Recent Advancement in Ureteral Surgery—Austin I. Dodson, Jr., M.D., and J. Edward Hill, M.D., Richmond.

Diagnosis of Intracranial Lesions by Angiography—James G. Snead, M.D., William P. Trice, M.D., and Edgar N. Weaver, M.D., Roanoke.

Information Center: Arthritis & Rheumatism Foundation—John H. Vaughan, M.D., Richmond.

Exfoliative Cytology—W. D. Dolan, M.D., Arlington.

TECHNICAL EXHIBITS

Technical exhibits will be in the Shenandoah Room and Foyer. Descriptions will be given in the October issue of the Monthly. Following is a list of exhibits with their space number:

1. SCHERING CORPORATION
Bloomfield, New Jersey
2. ABBOTT LABORATORIES
North Chicago, Illinois
3. LEDERLE LABORATORIES DIVISION
AMERICAN CYANAMID COMPANY
New York, New York
4. ELI LILLY AND COMPANY
Indianapolis, Indiana
5. G. D. SEARLE & COMPANY
Chicago, Illinois
6. CIBA PHARMACEUTICAL PRODUCTS, INCORPORATED
Summit, New Jersey
7. MEAD JOHNSON & COMPANY
Evansville, Indiana
8. ROSS LABORATORIES
Columbus, Ohio
9. DAVIES, ROSE & COMPANY, LIMITED
Boston, Massachusetts
10. U. S. VITAMIN CORPORATION
New York, New York
11. A. S. ALOE COMPANY
Washington, D. C.
12. THE BAKER LABORATORIES, INCORPORATED
Cleveland, Ohio
13. W. B. SAUNDERS COMPANY
Philadelphia, Pennsylvania
14. THE BORDEN COMPANY
New York, New York
15. J. B. ROERIG AND COMPANY
Chicago, Illinois
16. WM. P. POYTHRESS & COMPANY, INCORPORATED
Richmond, Virginia
17. DOHO CHEMICAL CORPORATION
New York, New York
18. BILHUBER-KNOLL CORPORATION
Orange, New Jersey
19. MERIDIAN ELECTRONICS, INCORPORATED
Richmond, Virginia
- 20-21. THE COCA-COLA COMPANY
Atlanta, Georgia
22. POWERS & ANDERSON, INCORPORATED
Richmond, Virginia
23. A. H. ROBINS COMPANY, INCORPORATED
Richmond, Virginia
24. R. J. REYNOLDS TOBACCO COMPANY
Winston-Salem, North Carolina
25. THE STUART COMPANY
Chicago, Illinois
26. WALKER LABORATORIES, INCORPORATED
Mount Vernon, New York
27. THE WM. S. MERRELL COMPANY
Cincinnati, Ohio
28. McLAIN SURGICAL SUPPLY OF VIRGINIA, INCORPORATED
Charlottesville, Virginia
29. ZIMMER MANUFACTURING COMPANY
Warsaw, Indiana
30. SMITH, KLINE & FRENCH LABORATORIES
Philadelphia, Pennsylvania
31. VANPELT AND BROWN, INCORPORATED
Richmond, Virginia
32. E. R. SQUIBB & SONS
New York, New York
33. WINTHROP LABORATORIES
New York, New York
34. AYERST LABORATORIES
New York, New York
35. SANDOZ PHARMACEUTICALS
Hanover, New Jersey
36. ORTHO PHARMACEUTICAL CORPORATION
Raritan, New Jersey
37. RICHMOND SURGICAL SUPPLY COMPANY
Richmond, Virginia
38. TABLEROCK LABORATORIES, INCORPORATED
Greenville, South Carolina
39. PHYSICIANS PRODUCTS COMPANY, INCORPORATED
Petersburg, Virginia
40. NATIONAL DRUG COMPANY
Philadelphia, Pennsylvania
41. BURROUGHS WELLCOME & COMPANY (U.S.A.)
INCORPORATED
Tuckahoe, New York
42. PET MILK COMPANY
St. Louis, Missouri
43. CHARLES C. HASKELL & COMPANY, INCORPORATED
Richmond, Virginia
44. AMES COMPANY, INCORPORATED
Elkhart, Indiana
45. THE J. D. PHARMACAL COMPANY, INCORPORATED
Richmond, Virginia
46. JULIUS SCHMID, INCORPORATED
New York, New York
47. C. B. FLEET COMPANY, INCORPORATED
Lynchburg, Virginia
48. PEOPLES DRUG STORE, INCORPORATED
Washington, D. C.

The Emily Gardner Memorial

THE DEDICATION of the Emily Gardner Well Baby Clinic in the West End Public Health Center of Richmond is a heartening example that the public appreciates and sometimes takes steps to memorialize physicians whose lives exemplify that which is best in medicine. With appropriate ceremonies, a suitably inscribed plaque was presented on May 16 and it was announced that a considerable sum had been raised by friends of Dr. Gardner to further preventive medical care among the children of this section of Richmond.

Dr. Gardner was born in Franklin on June 30, 1899. She died of carcinoma of the lung on January 23, 1956. It is eminently fitting that Dr. Gardner's memorial should take the form of a Well Baby Clinic. For twenty-five years she devoted her energy and talents to keeping well the children of Richmond. As a pediatrician of excellent training, she brought to the care of the sick child an orderly mind, a discerning eye, a sympathy and an understanding that insured the cooperation of the youthful patient and allayed the fears of the anxious parents.

It is also appropriate that this memorial should be part of a public health activity. While Dr. Gardner was identified with both the State and City Departments of Health and left her imprint on these agencies by her constant efforts in their behalf, unquestionably her own career was likewise influenced by her long association with these organizations. Following her graduation in 1922 from the Woman's Medical College of Pennsylvania, she took a two year internship in Pittsburgh. She then returned to Richmond and became Assistant Director of the Bureau of Child Health of the State Health Department. Certainly these four years spent under the outstanding leadership of Dr. Ennion G. Williams were vastly important ones during that formative period of her professional life. She was one of two members of the Department who traveled about the State giving toxin-antitoxin for the prevention of diphtheria. This agent was then viewed with suspicion by many physicians. The success of this preventive was so immediate and apparent that a skeptical profession was won over. It is not too much to speculate that this happy outcome intensified Dr. Gardner's interest in pediatrics, as well as public health. Be that as it may, in 1928 she began two and one-half years of pediatric training in New York and Brooklyn. She then received a Mary Putnam Jacobi Fund Fellowship for study abroad in pediatrics.

Returning to Richmond again in 1932, Dr. Gardner combined the private practice of pediatrics with civic interest so numerous and diverse that only her service on the Board of Health can be dealt with in this limited space. During the last ten years of her life she served as a member of the Richmond Board of Health. Membership on the board carries with it duties which, while not arduous, frequently are detailed, sometimes are repetitious and usually are routine and unexciting. Dr. Gardner was absent only once during this period. Two weeks prior to her death she missed her first meeting but a telephone hook-up permitted her to listen to the deliberations of the board and in turn to pass on suggestions to the members.

At every Board of Health meeting she gave each topic its full measure of attention and always brought to the subject the knowledge acquired from her earlier public health background, as well as the benefit of her many contacts with related health organizations. Upon the death of Dr. M. Pierce Rucker in the fall of 1953, Dr. Gardner's selection as Chairman of the Board of Health was the logical choice and she served in this capacity until her death two years later.

These last two years unquestionably were the most fruitful of her life despite the fatal malady which manifested itself during the latter half of this period. Her only request to her physician was that she be kept fully informed regarding her condition and this was done. She did not dramatize her illness. In fact, she rarely alluded to it and then only when it was necessary in connection with her work. She died as she had lived, a Christian unafraid.

And so, in naming this health center for Dr. Gardner, we trust that the spirit of service which characterized her life will be transmitted in large measure to this institution and so will continue to make Richmond a safer place in which to live for countless children yet unborn.

H.J.W.

Some Factors Concerning the Cause of Coronary Heart Disease

CORONARY ARTERY disease has increased in the past twenty years, particularly in the middle-age male group, as indicated by vital statistics as well as life insurance experience. Does this indicate that this generation has changed? Are our arteries less hardy than those of our forebears? Or is this a disease process which may be prevented or perhaps even reversed once it has occurred? We might assume a defeatist attitude and consider that we Americans are doomed by heredity to develop early coronary atherosclerosis. This does not appear to be the case. Recent studies show that other races, who at home have little coronary disease, when they live among us and assume our way of life, are more susceptible to this disorder. Negroes, Italo-Americans, and the Japanese in Hawaii have a much greater incidence of coronary disease than other members of their races in their homelands. The male is much more susceptible to coronary disease than the female unless she has some of the predisposing conditions such as diabetes, hypercholesterolemia or hypertension.

Let us examine some of the suggested etiological factors and discuss them briefly.

Heredity seems to play a part. The incidence of coronary disease in the families of patients with this condition is about twice that in normal individuals, but the mechanism is unknown, and it is possibly related to a similar mode of life as well as to some inherited predisposition to the disease. Perhaps this inherited defect is controllable or correctable.

Obesity is said to predispose to coronary disease. In fact, 91% of young soldiers who died from myocardial infarction were found to be overweight. Life insurance statistics indicate that the mortality from heart disease in men who are 20% overweight is 50% higher than it is in the general population. However, the incidence of obesity among patients with coronary disease is very little greater than in normal comparable individuals. Most striking is the low incidence of coronary disease in the Bantu native in Africa who are frequently overweight. The same is true of Italians, but the contrast is less remarkable.

Lack of physical activity may be a factor in the development of the effects of coronary artery disease. It seems reasonable to assume that the individual who exercises may stimulate larger coronary anastomoses so that the closure of a vessel may not produce clinical signs or symptoms, but it is more difficult to understand how coronary atherosclerosis can be prevented by exercise. A recent study in Chicago failed to demonstrate any advantage to the manual worker, and sedentary individuals in Japan show no more atherosclerosis than do manual workers.

There are several studies suggesting that coronary artery disease is more frequent among business executives and professional men than in the general population. However, careful analysis of these figures does not support this concept.

Sex difference: It has been shown that men under 40 have a twenty-fold greater occurrence of myocardial infarction than women at the same age. Approximately sixty per cent of men at the age of 50 have marked coronary atherosclerosis as compared with fifteen per cent of women at this age. The incidence increases rapidly, however, after menopause so that at the age of 60 the incidence of coronary atherosclerosis in men and women approaches the same figure. It has further been shown that there is a higher incidence of coronary disease in women who have been oophorectomized than in women with intact ovaries.

It is known that in China, Okinawa, Japan, and among Bantu Negroes in Africa, the incidence of coronary artery disease is very low as compared with that in this country, in England and in the Scandinavian countries. Usually no more than 20% of the total caloric intake of these people with little coronary disease is derived from fat, while in England 35% and in this country about 40% of our caloric intake comes from fat. A recent survey in the army indicates that about 45% of the caloric intake is fatty in origin. In certain Italian areas where the fat consumption is intermediate between these extremes, the incidence of coronary disease is, likewise intermediate. Further evidence that the dietary intake of fat and coronary atherosclerosis may be related lies in the observation that in Norway and Finland, when the fat intake was reduced markedly during the war, the incidence of coronary disease fell concurrently to a low level and after the war, when the fat consumption increased again, the previous high levels of coronary disease returned. Similarly, it has been observed that Jewish people who lived for many years in Yemen and were accustomed to a low fat diet had a low incidence of coronary disease, but when they moved from Yemen to Israel and ate a high fat diet, the incidence of coronary disease increased.

One might ask the question: How does fat intake affect the coronary arteries? Since cholesterol is deposited in the intima of the diseased coronary arteries, it appears that the metabolism of this substance is in some way related to the condition. Cholesterol can be synthesized by all animal tissues. About two grams of cholesterol are synthesized by the body daily as compared to a dietary intake of about 0.5 grams; therefore, it is probable that the cholesterol content of the diet is not vital. Hypothetically, some interference with cholesterol metabolism, during its formation, transport in the blood, deposition in the vessels, or secretion from the body may be more important. There is a relationship between the degree of atherosclerosis and the level of the serum cholesterol. The average level of serum cholesterol is higher in individuals with coronary disease than it is in normal individuals, and the average serum cholesterol of populations in which the incidence of coronary disease is elevated is higher than in those who have a low incidence of this disorder.

The serum cholesterol concentration can be lowered by reducing the fat content of the diet. If an individual is placed on an extremely low fat diet, within about 48 hours, the serum cholesterol begins to fall until it is 30% below the original level in three to four weeks. By reduction of the diet so that 15% to 20% of the total caloric intake is derived from fat, appreciable reductions of the serum cholesterol can also be expected, but not to the levels found in a population which maintains this sort of diet all their lives and in whom the incidence of coronary disease is very low. There is some recent work to indicate that the type of dietary fat is more important than the total fat content. When fats which contain large amounts of unsaturated fatty acids are ingested the serum cholesterol falls, and when the same type of fats are saturated and fed, the serum cholesterol rises again. This may have far-reaching implications as a therapeutic measure.

The blood lipids have been studied by several methods. They have been separated by means of an ultracentrifuge, the distribution of cholesterol between Alpha and Beta lipoproteins has been examined, and the total cholesterol phospholipid ratio

emphasized. The Gofman 12-100 fraction as separated by the ultracentrifuge, the cholesterol combined with the Beta lipoproteins, the cholesterol phospholipid ratio, as well as the total cholesterol in the majority of patients with atherosclerosis have all been found to be increased. There is some evidence that these abnormalities can be partially reversed by feeding estrogen to some patients, though the effect of these changes on the coronary artery disease must await long-term evaluation and are not clinically useful at the present time. The ingestion of Sitosterol has been reported to be followed by reduction of total serum cholesterol and Beta lipoprotein lipid. The cause of this reduction is not known but may be due to interference with absorption of endogenous cholesterol excreted into the gut as well as exogenous cholesterol taken in the diet. The therapeutic role of this or similar substances has not been established but may have practical value in the future.

Experimental production of atherosclerosis: Experimental atherosclerosis has been produced in animals for many years, first in rabbits by feeding them large amounts of cholesterol and, later, in many other animals, including monkeys, dogs, hamsters, guinea pigs, and rats. This has been done by varying the fat and cholesterol intake and, at the same time, interfering with metabolism by various methods. Much work has been done on the experimental production of atherosclerosis in chicks. It has been shown that atherosclerosis can be produced in these animals by feeding proper mixtures of cholesterol and lipids. Simultaneously, moderate hypercholesterolemia and abnormal cholesterol phospholipid ratios occur. These blood lipid abnormalities can be reversed by proper manipulation of the diet or by the administration of estrogens. Atherosclerotic lesions can likewise be prevented by the simultaneous administration of estrogens, and it has been further shown that the lesions of the coronary arteries which have been experimentally produced in these animals can be reversed by estrogen administration. Atherosclerosis in the chick is, therefore, reversible!

What does all of this mean? Atherosclerosis no doubt has many etiologies and associations, and there are probably many conditions which further its occurrence. Heredity, hormonal imbalance, etc., may be trigger mechanisms, but after the trigger has been pulled, a series of reactions probably come into play which result in development of atherosclerosis. These reactions are tied up in lipoprotein metabolism and may well be reversible. It is encouraging to know that the condition is a disease that is probably preventable and reversible. This leaves us with a tremendous challenge but one with some hope of solution.

Since, at the present time, we do not have the final solution, we must draw certain practical conclusions from the evidence presented above and apply these to our problems in dealing with patients who have coronary atherosclerosis.

Because there is evidence that obese individuals are statistically more liable to develop coronary disease, it seems wise to reduce the caloric intake of such patients with coronary atherosclerosis so as to effect weight reduction to just below their predicted normal weight according to standard tables. A reduction in the serum cholesterol can be effected by the ingestion of a low fat diet; therefore, one may not only effect weight reduction but probably affect other factors which seem to be important in the development of atherosclerosis. The use of fats containing unsaturated fatty acids such as cottonseed and corn oils may further cause reduction in serum cholesterol. Such a diet, low in neutral fats and low in calories but containing unsaturated fats, has been employed in many of our patients. This diet is palatable and requires surprisingly little change in the dietary habits.

The long term results must await evaluation in the future, but at the present time, this seems to be the most practical approach to the problem.

JULIAN R. BECKWITH, M.D.

Society Proceedings

Alleghany-Bath County Medical Society.

At the meeting of this Society on July 25th, Dr. G. G. Myers, Hot Springs, was elected to the presidency, succeeding Dr. R. L. Claterbaugh, Clifton Forge. Dr. N. B. Jeter, Covington, was named vice president and Dr. R. Preston Hawkins, Clifton Forge, re-elected secretary-treasurer.

A presentation on Carcinoma of the Cervix was given by Drs. John Allen and Ignatio Gubzan of the C. & O Hospital, Clifton Forge.

Virginia Board of Medical Examiners.

The annual meeting of the Board was held in Richmond, June 14-16. Officers are: Dr. Waverly R. Payne, Newport News, president; Dr. W. Holmes Chapman, Jr., Suffolk, vice-president, and Dr. K. D. Graves, Roanoke, secretary-treasurer.

The following applicants were licensed by examination:

Dr. Harry Shore Abram, Roanoke
Dr. Giovanni Pietro Ascher, New York, N. Y.
Dr. Charles Chandler Ashby, Springfield, Ohio
Dr. Panayiota A. Athanasiadou, Washington, D. C.
Dr. Gerold Wesley Atkinson, Norfolk
Dr. Leigh Oliver Atkinson, Roanoke
Dr. Donald Keith Auvil, Baltimore, Md.
Dr. Thomas Herbert Bain, Crozet
Dr. Marc Balin, Brooklyn, N. Y.
Dr. Peter Bartsch, Collinsville, Ill.
Dr. William Bauer, Richmond
Dr. Elmore James Becker, San Francisco, Calif.
Dr. William Paul Bennett, Baltimore, Md.
Dr. Peter Bercaw, Wilmington
Dr. Charles Richard Blake, St. Marys, W. Va.
Dr. Gilbert Palmer Blankinship, Norfolk
Dr. Dane Ruffner Boggs, Charlottesville
Dr. Irving David Bornstein, Bedford
Dr. John Victor Bowyer, Roanoke
Dr. Andrew Gessner Briggs, III, University
Dr. William Brushwood Brown, Gloucester
Dr. Francisco A. Buenaventura, Garfield Heights, Ohio
Dr. Francis Gregory Burns, Jr., Miami, Fla.
Dr. George Nick Cavros, Norfolk
Dr. Sophia H-Ying Chang, New York, N. Y.
Dr. Jen Ti Chen, Philadelphia, Pa.
Dr. Tsung O. Cheng, Cambridge, Mass.
Dr. Joel Arnold Clark, Jr., Hampton
Dr. Fred Newton Clark, Jr., Pulaski
Dr. James Edward Comer, Jr., Roanoke
Dr. Roderick Anthony Comunale, Rahway, N. J.
Dr. Tony Constant, Richmond
Dr. Victor Eugene Cornett, Wytheville
Dr. Richard Savington Crampton, New York, N. Y.
Dr. Anthony Abraham Deep, Jr., Richmond
Dr. Bennett Marsh Derby, Charlottesville

Dr. William Andrew Dickinson, Jr., Cape Charles
Dr. Mario Alberto Dolan, Jersey City, N. J.
Dr. Charles Laing Dorsey, Durham, N. C.
Dr. Emir Vero Duany, New York, N. Y.
Dr. Keith Castleton Edmonds, Richmond
Dr. William Nelson Evans, Staunton
Dr. Andrew Maurice Fekete, Norfolk
Dr. Hugh Erskine Frazer, Jr., Courtland
Dr. Thomas Montague Fulcher, Amherst
Dr. James Anderson Gardner, Catawba Sanatorium
Dr. Victor Woodward Gieschen, Wauwatosa, Wis.
Dr. Frederick David Gillespie, North Tazewell
Dr. Lester Langdon Gillespie, Danville
Dr. Roy Stuart Gillinson, Richmond
Dr. Arthur Joseph Glazebrook, Manteno, Ill.
Dr. Clarence Kinsey Glover, Jr., Falls Church
Dr. Sidney John Glueck, Springfield, Ohio
Dr. Carl Melvin Goldsmith, Amesbury, Mass.
Dr. Anne Smith Goldston, Norfolk
Dr. Ervin Alexander Gombos, New York, N. Y.
Dr. John Russell Good, Richmond
Dr. Thomas Lee Gorman, Lynchburg
Dr. Wallace Morrison Graves, Jr., Dunellen, N. J.
Dr. Elkanah Burns Gray, Richmond
Dr. John Seybert Hansel, Jr., Monterey
Dr. Lloyd Tayloe Griffith, Mt. Holly
Dr. William Paul Grigsby, Dublin
Dr. Jack Merritt Gwaltney, Jr., Roanoke
Dr. Helmut O. Haar, Buffalo, N. Y.
Dr. Echols Alcott Hansbarger, Jr., Richmond
Dr. Guy Morley Harbert, Jr., Galax
Dr. Ronald Blythe Harris, Roanoke
Dr. Lucius Ashton Harrison, Jr., Richmond
Dr. Luisa Elena Hawkins, Charlottesville
Dr. Maria Rosa Helma, Salt Lake City, Utah
Dr. Donald Thomas Hensley, Midlothian
Dr. Ralph William Hess, Conway
Dr. Fitzgerald Hiestand, Jr., Charlottesville
Dr. Donald Sherman Howell, Suffolk
Dr. Richard Page Hudson, Jr., Richmond
Dr. Russell Lee Hughes, Roanoke
Dr. David Scott Humphries, Richmond
Dr. Robert Hutchings Jennings, Charlottesville
Dr. Frank Mitchell Johnson, Little Rock, Ark.
Dr. William Carl Kappes, Jr., Richmond
Dr. Mikio Kato, New Britain, Conn.
Dr. Daniel Lee Kendrick, Richmond
Dr. Marvin Allan Krane, Philadelphia, Pa.
Dr. John Jay Krueger, Jacksonville, Fla.
Dr. Cooper Dave Kunkel, III, Norton
Dr. Otto Julius Adolf Kurz, Washington, D. C.
Dr. Bennett Watterson LaPrade, Lynchburg
Dr. Leavie Edgar Lee, Jr., Fort Pierce, Fla.
Dr. Arne S. Levinson, Philadelphia, Pa.
Dr. Martin Philip Levinson, Virginia Beach
Dr. Tsi Gziou Li, Richmond Hill, N. Y.
Dr. Winifred Wei Liu, Boston, Mass.
Dr. Alfred Siebert Llorens, Atlanta, Ga.
Dr. John Y. Ma, Greystone Park, N. J.

Dr. Frank Shipps MacDonell, Charlottesville
 Dr. William Ashby Manson, Jr., Norfolk
 Dr. Emilio Hano Marquez, Brooklyn, N. Y.
 Dr. James Irvin Masloff, Danville
 Dr. William McKinnon Massie, University
 Dr. William Rutherford Mauck, Richmond
 Dr. Boyd Hickman May, Jr., Elkins, W. Va.
 Dr. William Otey McCabe, Jr., Roanoke
 Dr. Frank Cyrus McCue, Maxwelton, W. Va.
 Dr. Neil Mathieson McFaydyen, Petersburg
 Dr. Peter Joachim Mette, Roanoke
 Dr. Robert Lyle Miles, Wheeling, W. Va.
 Dr. Joseph Robert Milligan, Arlington
 Dr. Zbyszko Kazimierz Mitis, Galveston, Tex.
 Dr. Alfon Bernard Mosca, Charlottesville
 Dr. Albert William Moser, Richmond
 Dr. Fitzhugh X. Mullins, Jr., Richmond
 Dr. Robert Anton Nebesar, Bristol, Tenn.
 Dr. Stanley Stuart NeeDell, Miami, Fla.
 Dr. John Marshall Nichols, Richmond
 Dr. Eugene Davis Nolley, Richmond
 Dr. Robert Keith Osborne, Richmond
 Dr. Robert Stephen Perry, Arlington
 Dr. Charles Hanson Peterson, Jr., Hollins
 Dr. Frederick Gunner Pierce, Jr., Richmond
 Dr. James Woodford Proffitt, Richmond
 Dr. Pin Hsiu Pu, Youngstown, Ohio
 Dr. Giuseppe Purrazzella, Springfield Gardens, N. J.
 Dr. Sterling Neblett Ransone, Richmond
 Dr. Robert Cook Raynor, Charlottesville
 Dr. Louis John Read, Danville
 Dr. Gary Lemasters Ripley, Huntington, W. Va.
 Dr. Robert John Robertson, Jr., Norfolk
 Dr. Gerald William Roller, Timberville
 Dr. Thomas Nelson Rucker, Atlanta, Ga.
 Dr. Willcox Ruffin, Jr., Cleveland, Ohio
 Dr. James Caldwell Sams, Huntington, W. Va.
 Dr. Frederick Henry Savage, Richmond
 Dr. Rosemary Foulger Schellenberg, Richmond
 Dr. Franz Schubert, Charlottesville
 Dr. Rudolf Franz Schuster, Washington, D. C.
 Dr. James Richard Sease, Richmond
 Dr. William Langley Sibley, III, Seattle, Wash.
 Dr. Kenneth Brown Sizer, Glasgow
 Dr. Dave Jessop Skewes, Pocahontas
 Dr. John Randolph Smith, Fieldale
 Dr. Robert Sullins Smith, Springfield, Ohio
 Dr. Samuel Soichet, Bradley Beach, N. J.
 Dr. Henry Hezekiah Sprague, Philadelphia, Pa.
 Dr. Sidmund Charles Stein, Suffolk
 Dr. Tadeusz S. Strzembosz, Buffalo, N. Y.
 Dr. Edwin Allen Sumpter, Rochester, N. Y.
 Dr. Thomas Austin Sydnor, Jr., Charlottesville
 Dr. Paulus Clayton Taylor, Emporia
 Dr. James Edmond Temple, Richmond
 Dr. William Jennings Thomas, Durham, N. C.
 Dr. Walter Thompson, Louisville, Ky.
 Dr. George Charles Thrasher, Jr., Roanoke
 Dr. William Allen Thurman, Jr., Vinton
 Dr. Antonio Pietro Tirone, Miami, Fla.
 Dr. Hasi Lin Tung, Manchester, N. H.
 Dr. Jorge Villavicencio, Alexandria
 Dr. Raymond Dewey Wallace, Jr., Norfolk

Dr. Julian Marion Warren, Durham, N. C.
 Dr. Reinold Emil Weiss, Charlottesville
 Dr. Rheudolph James Wells, Danville
 Dr. Herbert Wiesinger, Richmond
 Dr. Edwin Lincoln Wildner, Jr., Warwick
 Dr. Edward James Wiley, Jr., Richmond
 Dr. Elisha William Winfrey, III, Charlottesville
 Dr. Nancy Jane Wing, Waterville, Me.
 Dr. Bernard Francis Wittkamp, Jr., Richmond
 Dr. Harriett Evelyn Wood, Norfolk
 Dr. Dorothy Urban Wright, Richmond
 Dr. Robert Hsun-Piao Yuan, Quincy, Mass.
 Dr. Lawrence Coleman Zacharias, Richmond
 Dr. Walter Moffett Zirkle, Jr., Baltimore, Md.

The following were licensed to practice medicine by endorsement of credentials:

Dr. Thomas Milton Arrasmith, Jr., Norfolk
 Dr. Robert Eugene Bitner, Falls Church
 Dr. Thomas P. Caine, Jr., Warwick
 Dr. Anne Shirley Carter, Richmond
 Dr. William Henry Christian, Jr., Roanoke
 Dr. Charles Henry Crudden, Harlan, Ky.
 Dr. Leonard Loeb Deitz, Hyattsville, Md.
 Dr. Richard N. deNiord, Jr., Charlottesville
 Dr. Carlos Anibal Dominguez, Washington, D. C.
 Dr. Henry Clay Evans, Jr., Harlan, Ky.
 Dr. Charles Hyatt Field, Roanoke
 Dr. Charles William Foulke, Falls Church
 Dr. John Hugh Frierson, South Boston
 Dr. Alberto J. Garcia, Alexandria
 Dr. Robert Riddick Gatling, Roanoke
 Dr. Marcus Peter Goumas, Arlington
 Dr. David McLean Greeley, Harlan, Ky.
 Dr. Halcott Townes Haden, Richmond
 Dr. Herbert Curtis Haynes, Alexandria
 Dr. Henry Joseph Horn, Fairfax
 Dr. Robert R. Hughes, Grundy
 Dr. Raymond Jack Irons, Troutville
 Dr. Emory Roy Irvin, Blacksburg
 Dr. William Paul Irvin, Norfolk
 Dr. Thomas Richards Johns, II, Charlottesville
 Dr. Lester Dean Johnson, Jr., Falls Church
 Dr. Robert Edward Kelleher, Portsmouth
 Dr. William Wolfgang Kleinhandler, Wise
 Dr. Benjamin Jones Lawrence, Raleigh, N. C.
 Dr. Charles Edward LeBlanc, Roanoke
 Dr. Dean Harrington Martin, Washington, D. C.
 Dr. Francis Michael Mastrota, Arlington
 Dr. Robert Melvin McDonald, Richmond
 Dr. Richard Edward McGovern, Richmond
 Dr. Irwin Hollar McNeely, Roanoke
 Dr. Andres Tarcisio Melero, Durham, N. C.
 Dr. John Gordon Morow, Jr., Charlottesville
 Dr. John Goodman Novak, Newark, N. J.
 Dr. Sam Chapman Pasco, Falls Church
 Dr. Edward K. Pearson, Fairfax
 Dr. Jean H. Horrigan Pearson, Fairfax
 Dr. Thomas Jefferson Penn, Grundy
 Dr. William John Perry, Alexandria
 Dr. William Hotchkiss Potter, Harlan, Ky.
 Dr. Neal Jack Price, Washington, D. C.
 Dr. John Eugene Prominski, Arlington

Dr. Norman Sherwin Propper, Wise
 Dr. Gerald Norman Rain, Wise
 Dr. Charles Adrian Rich, Roanoke
 Dr. George Wheeler Roark, Jr., Falls Church
 Dr. James Bratton Roberts, Richmond
 Dr. Richard Coffman Shrum, Charlottesville
 Dr. Lonis Leon Schurter, Galax
 Dr. Morgan Eugene Scott, Williamsburg
 Dr. Charles Rodney Smith, Williamsburg

Dr. David English Smith, Charlottesville
 Dr. Edwin Ide Smith, Norfolk
 Dr. Homer Allen Sweetman, Richmond
 Dr. Charles Caverly Swift, Franklin
 Dr. James Robert Thompson, Richmond
 Dr. Leo Weiss, Richmond
 Dr. Harold Niels Wessel, Harrisonburg
 Dr. Arthur Eugene White, Arlington
 Dr. John H. Willard, Harlan, Ky.

News

Calendar of Coming Events

COUNTY SOCIETY OFFICERS' CONFERENCE—Hotel Virginian, Lynchburg, Virginia—September 15.
 AMERICAN COLLEGE OF SURGEONS—42nd Annual Clinical Congress—Civic Auditorium—San Francisco, California—October 8-12.
 THE MEDICAL SOCIETY OF VIRGINIA—Annual Meeting—Hotel Roanoke, Roanoke, Virginia—October 14-17.
 AMERICAN COLLEGE OF GASTROENTEROLOGY—Annual Course in Postgraduate Gastroenterology—The Roosevelt, New York City, New York—October 18-20.
 EASTERN PSYCHIATRIC RESEARCH ASSOCIATION, INC.—First Annual Meeting—Hotel Waldorf Astoria, New York City, New York—October 27.
 SOUTHERN MEDICAL ASSOCIATION GOLDEN ANNIVERSARY MEETING—Washington, D. C., November 12-15.
 AMERICAN PUBLIC HEALTH ASSOCIATION—84th Annual Meeting—Convention Hall, Atlantic City, New Jersey—November 12-16.
 CONFERENCE ON PROBLEMS OF THE AGING AND THE CHRONICALLY ILL—Sponsored Jointly by The Medical Society of Virginia and the Virginia Council on Health and Medical Care—Hotel John Marshall, Richmond, Virginia—November 8.
 AMERICAN MEDICAL ASSOCIATION—Clinical Meeting—Seattle, Washington—November 27-30.

Guest Speakers

Annual Meetings of The Medical Society of Virginia have long been known for the excellence of their scientific sessions and exhibits. 1956 is no exception! Every effort has been made to arrange a program attractive to all physicians—a program studded with the names of nationally known guest speakers.

Although a complete preliminary program appears in this issue, it is well to spotlight our invited guests. They are:

Francis Braceland, M.D., President, American Psychiatric Association, Hartford, Connecticut

Frank R. Lock, M.D., Professor of Obstetrics and

Gynecology, Bowman-Gray School of Medicine, Winston-Salem, North Carolina

E. E. Menefee, Jr., M.D., Associate Professor of Medicine, Duke University, Durham, North Carolina

Henry Viscardi, Jr., President, Abilities, Inc., West Hempstead, New York

Charles S. Rowe, Editor, Fredericksburg Free Lance-Star, Fredericksburg

Peyton B. Winfree, Jr., Executive Editor, News and Daily Advance, Lynchburg.

The Monday Evening General Session

One of the highlights of the 1956 Annual Meeting will be the General Session to be held in the

Ballroom of the Hotel Roanoke, on Monday evening, October 15, at 8:30 p.m. This is the session which traditionally features the address of the President, introduction of "Fifty Year Club" members and the memorial observance.

Sharing the speakers platform this year will be one of the country's outstanding personalities—Henry Viscardi, Jr., Kingsport, Long Island, New York. The Society is fortunate indeed to have secured Mr. Viscardi, who is in great demand the nation over. Author, businessman, and champion of the physically handicapped, Mr. Viscardi has an inspiring story to tell of "workers in wheel chairs".

There is one thing that is certain. After you have heard Mr. Viscardi's talk and have seen his slide illustrations—which tell a story themselves—you will have an entirely new concept of what constitutes a disabled worker. Here is a true story, told with such humility that it will be an inspiration for years to come.

Don't miss it!

New Members.

Since the list published in the August issue of the Monthly, the following new members have been admitted into The Medical Society of Virginia:

Anne Shirley Carter, M.D., Richmond
Esther Groves Fagan, M.D., Lexington
Tibor Heda, M.D., Petersburg
Edwin Carlos Lanz, M.D., Wytheville
Robert Kent Maddock, M.D., Norfolk
Moir Glenwood Martin, M.D., Hillsville
Robert Alan Morton, M.D., Norfolk
Edwin Ide Smith, M.D., Norfolk

Golden Anniversary.

The Southern Medical Association will celebrate its Golden Anniversary at the Read House, Chattanooga, Tennessee, October 2-3. This will be a historical and inspirational meeting and will not conflict with the regular scientific session in Washington, November 12-15.

The Southern Medical Association was founded at a meeting at the Read House on October 2-3, 1906. The Golden Anniversary Celebration will begin with a dinner meeting with Dr. R. L. Sanders, immediate past president of the Southern Medical Association, and Dr. Dwight H. Murray, President of the American Medical Association, as guest speakers. A plaque, to be placed in the Read House, will be unveiled at this time.

Physicians who are members of their county and state medical societies are cordially invited to attend this Celebration.

Dr. Harry Walker,

Professor of Clinical Medicine, Medical College of Virginia, has been appointed acting chairman of the Department of Medicine. He is acting in the place of Dr. William Branch Porter, chairman, who is incapacitated because of illness.

Dr. Prentice Kinser, Jr.,

Danville, announces the association of Dr. Robert E. Musgrave in the practice of orthopedic surgery.

Virginia Trudeau Society.

Top state and national physicians will participate in the annual meeting of the Virginia Trudeau Society, to be held on September 26 in the Hotel Jefferson, Richmond. The scientific and business sessions will be held in conjunction with the fall meetings of the Virginia Tuberculosis Association, of which the Society is the medical section, and the Virginia Conference of Tuberculosis Workers, September 26 and 27.

Nationally known leaders in the realm of tuberculosis medicine who will be featured speakers are: Dr. Robert J. Anderson, Chief, Division of Chronic Diseases and Tuberculosis, U. S. Public Health Service; Dr. Esmond Long, former Director of Medical Research for the National Tuberculosis Association and the Henry Phipps Institute of Philadelphia, and Dr. Julius Wilson, Director of the NTA Medical Education Division.

The early part of the program will be devoted to sessions of interest to both physicians and lay audiences, opening with Dr. Anderson's keynote speech, and will include a panel discussion of the pertinent question of "Home Treatment of Pulmonary TB versus Sanatorium Treatment," moderated by Dr. E. C. Drash of the University of Virginia hospital. Panel members will be: Dr. E. S. Ray, Medical College of Virginia; Dr. W. F. Wagner, Director State TB Control Division; Dr. C. C. Smith, Catawba Sanatorium; Dr. C. G. Pearson, Blue Ridge Sanatorium, and Dr. Julius Wilson.

Virginia's regional TB clinic program will form the topic of Dr. W. E. Apperson's paper, as part of the general session.

The VTS scientific session has been planned to interest general practitioners as well as specialists. It will include papers on "Medical Research" by Dr. Esmond Long; "Artificial Pneumothorax Combined with Chemotherapy—A New Concept," by Dr. C. W. LaFratta, and "Bronchiectasis" by Dr. D. L. Brummer. Registration will begin on Wednesday, September 26.

Dr. Harold W. Miller,

Woodstock, has been appointed by Governor Stanley as a member of the newly created State Council of Higher Education for Virginia.

Fiske Essay on Infertility

The Trustees of America's oldest medical essay competition, the Caleb Fiske Prize of the Rhode Island Medical Society, announce as the subject for this year's dissertation "THE PRESENT DAY TREATMENT OF INFERTILITY". The dissertation must be typewritten, doubled spaced, and should not exceed 10,000 words. A cash prize of \$350 is offered. Essays must be submitted by January 10, 1957.

For complete information regarding the regulations write to the Secretary, Caleb Fiske Fund, Rhode Island Medical Society, 106 Francis Street, Providence 3, Rhode Island.

The Southeastern States Cancer Seminar

Will be held at the George Washington Hotel in Jacksonville, Florida, November 7 and 8. The meeting is being sponsored by the Duval County Medical Society, under the auspices of the Florida Division of the American Cancer Society, Florida State Board of Health, and the Graduate School of Medicine of the University of Florida.

A program has been arranged which covers a wide range of subjects pertaining to malignancy and recent advances in their diagnosis and treatment. There will be an outstanding faculty of national authorities.

Further information may be obtained from Dr. Harry W. Reinstine, Jr., Post Office Box 4545, Jacksonville 1, Florida.

Dr. Detwiler Receives Award.

The Arlington County Medical Society presented the Third Annual Welburn Award for distinguished service to medicine in the community to Dr. Robert Detwiler. He is the first doctor to be honored with this award.

Distinguished Service Award.

The Southern Medical Association has announced the establishment of its Distinguished Service Award, the first one to be presented at the Association's Golden Anniversary Meeting in Washington, November 12-15. The award is symbolized by an attractive 14K gold medal.

The award is to be presented to a physician-member of the Association for outstanding and meritorious work done in any field of medicine or its

related and ancillary sciences. Any member in good standing may nominate a candidate for the award and official forms upon which the nomination shall be made are available from the headquarters office in Birmingham.

Conference on Obstetrics and Gynecology.

The University of Virginia, School of Medicine, will have a Conference on Obstetrics and Gynecology on September 28th. Guest speakers will include Dr. C. H. Mauzy, Bowman-Gray School of Medicine; Dr. Robert A. Kimbrough, Jr., Graduate School, University of Pennsylvania; and Dr. Andrew A. Marchetti, Georgetown University School of Medicine.

Dr. Robert D. Shreve,

Altavista, has been elected chairman of the Campbell County School Board.

Funds for Heart Research.

Five Virginia physicians are among 180 medical investigators sharing \$1,042,817 in new grants from the American Heart Association. Dr. E. Lovell Becker, Medical College of Virginia, receives \$3,500 for the evaluation of the rate of the renal tubular transport of inorganic sulphate in normal man; Dr. J. Francis Dammann, Jr., University of Virginia, \$2,982 for the control of pulse rate by an electronic square wave cardiac stimulator; Dr. George R. Minor, University of Virginia, \$3,000 for use of woven wire tubes as prostheses in large arteries and the effect of induced arteriosclerosis upon prostheses of various kinds. Dr. Reno Porter, Medical College Virginia, and Dr. Phillip Y. Patterson, University of Virginia, received renewed grants.

Dr. C. Carroll Smith,

Norfolk, announces as an associate Dr. Edwin Ide Smith. Their practice is limited to general surgery.

Southeastern Allergy Association.

A meeting of this Association will be held at the Barringer Hotel, Charlotte, N. C., October 5-6. Papers will be presented by Dr. Carl E. Arbesman, President of the American Academy of Allergy, and Dr. Ethan Allan Brown, President of the American College of Allergists. There will be panel discussions on Pediatric Allergy and Chronic Lung Diseases in Chronic Asthma.

Further information may be obtained from Dr. Katherine B. MacInnis, 1515 Bull Street, Columbia, S. C.

Manual of Standard Therapeutic Diets.

The Commission on Nutrition of The Medical Society of the State of Pennsylvania is now making available a new revised edition of its Manual of Therapeutic Diets. The first edition, issued several years ago, proved so popular that supplies were soon exhausted.

Over 30 separate diets are presented. These cover a wide variety of nutrition needs for liquid diets through soft diets to various types of modified diets. Recommended daily dietary allowances are given as well as a good composition table for a short method of dietary analysis.

Copies may be obtained by sending \$1.00 to The Commission on Nutrition, 230 State Street, Harrisburg, Pennsylvania.

Van Meter Prize Award.

The American Goiter Association again offers the Van Meter Prize Award of \$300.00 and two honorable mentions for the best essays submitted concerning original work on problems related to the thyroid gland. The award will be made at the annual meeting of the Association which will be held in the Hotel Statler, New York, May 28, 29 and 30, 1957, providing essays of sufficient merit are presented in competition.

The competing essays may cover either clinical

or research investigations should not exceed 3,000 words in length and must be presented in English. Duplicate typewritten copies, doubled spaced should be sent to the Secretary, Dr. John C. McClintock, 149½ Washington Avenue, Albany 10, New York, not later than January 15, 1957. The committee who will review the manuscripts is composed of men well qualified to judge the merits of the competing essays.

A place will be reserved on the program of the annual meeting for the presentation of the winning essay by the author if it is possible for him to attend. The essay will be published in the annual proceedings of the Association.

For Sale.

General Electric x-ray machine, fluoroscope and Bucky grid, 18 years old, in excellent condition. Reasonable price. Apply to Dr. Thomas G. Hardy, Jr., Medical College of Virginia, Richmond, or to Mrs. T. G. Hardy, Sr., Farmville, Virginia. (*Adv.*)

For Sale.

New unused American Medical Directory. Original cost \$30.00. Will sell for \$20.00. David D. Vaughan, M.D., 201 West Franklin St., Richmond 20. Phone 2-4802. (*Adv.*)

Obituaries

Dr. Lyle Steele Booker,

Dean of Waynesboro physicians, died August 10th after a brief illness. He was seventy-two years of age and a graduate of the University College of Medicine, Richmond, in 1908. Dr. Booker had practiced surgery in Waynesboro for forty-one years before his retirement in 1950. He was instrumental in the founding of the Waynesboro Community Hospital. Dr. Booker was a Mason, member of the Kiwanis Club and a former member of the board of assessors and the local selective service board. He had been a member of The Medical Society of

Virginia for nineteen years. His wife, a son and three daughters survive him.

Dr. Seymour George Pelzer,

Prominent Bristol physician, died July 27th, following a heart attack. He was forty-four years of age and received his medical degree in Bern, Switzerland. Dr. Pelzer was a 32nd degree Mason and a Shriner and a member of the Civitan Club. He had been a member of The Medical Society of Virginia since 1942, having joined when located at Calvin. His wife and three children survive him.



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Pediatric Bibliography

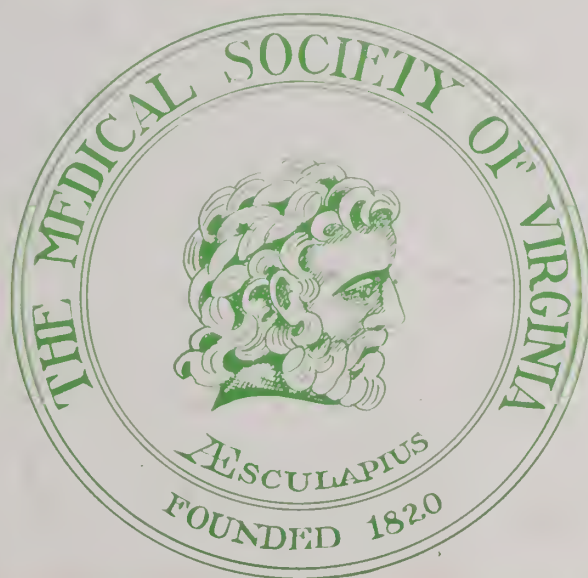
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*T.M. Reg. U.S. Pat. Off.

Smith, Kline & French Laboratories, Philadelphia

VIRGINIA

MEDICAL MONTHLY



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Infections of the respiratory tract respond readily to

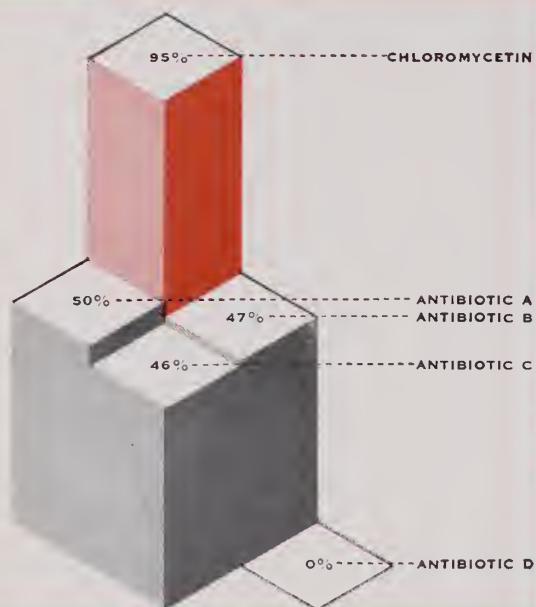
ILOTYCIN

(ERTHROMYCIN LILLY)

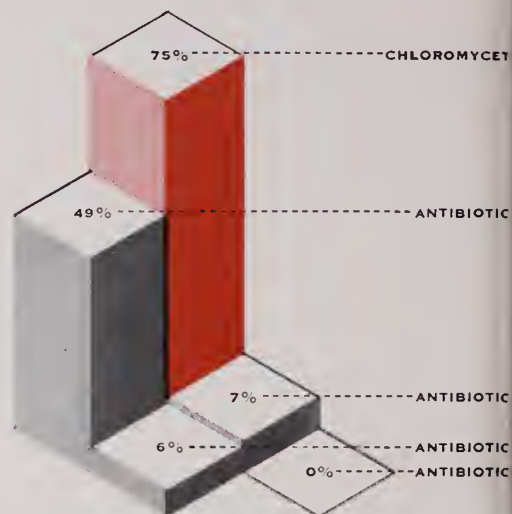
safe, well tolerated



SENSITIVITY OF COMMON PATHOGENS TO CHLOROMYCETIN AND FOUR OTHER MAJOR ANTIBIOTIC AGENTS*

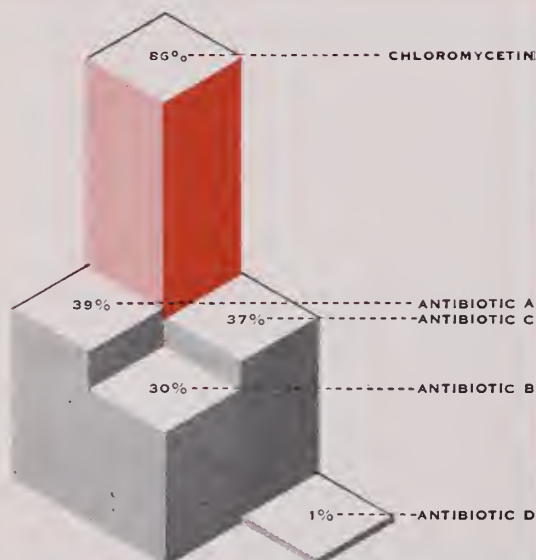


ESCHERICHIA COLI
(148-227 STRAINS)

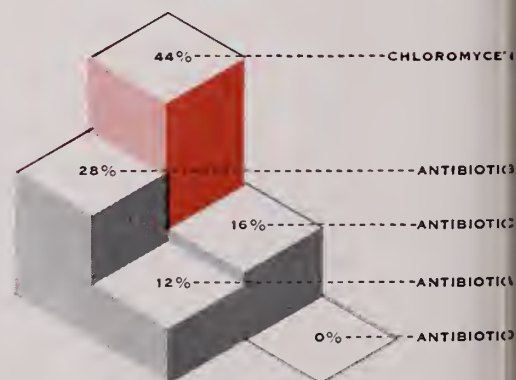


BACILLUS PROTEUS
(63-104 STRAINS)

AEROBACTER AEROGENES
(143-248 STRAINS)



PSEUDOMONAS AERUGINOSA
(39-70 STRAINS)



*This graph, based on *in vitro* studies, is adapted from Horton and Knig.

Guest Editorial

Limitation of X-Ray Examination

ROENTGENOLOGY as a method of detection and identification of disease has long come of age being now widely accepted by patient and physician alike. In fact the faith not only of laymen but occasionally physician in this method is unduly optimistic. It behooves us as physicians to recognize the inherent limitations of roentgenologic diagnosis even while we make extensive use of the method in caring for our patients. Diagnostic roentgenology has a two-fold purpose, namely to detect and correctly identify significant deviations from the normal. In most instances the former is more simple than the latter.

The relative reliability of examinations varies with the following factors:

1. Quality of examination
2. Type of disease
3. Stage of the disease
4. Skill of examiner.

1. The end result of a roentgenographic examination is a shadowgraph of the part in question cast upon the x-ray film. This recording is a fine interplay of subtle shades of gray and not a black and white, yes or no, record which is legible to all observers. The final product is dependent upon a wide range of factors beginning with the patient who must be sufficiently oriented and able to cooperate fully; a technician who must have the requisite skill and knowledge to properly position and instruct the patient in the examination; the apparatus which must be of proper quality to produce the roentgen image with the maximum definition in the minimum time; and lastly and most important, a well equipped, lightproof darkroom using chemicals of good quality at proper temperatures and times. This entire chain of circumstances must operate without fail to produce a satisfactory radiograph. Failure of any link in the chain will produce a roentgenogram which is less than satisfactory. Unfortunately such failures are not unknown or even uncommon and much of the discredit which falls upon the shoulders of roentgenology can be traced to technically unsatisfactory examinations. A second rate examination should never be accepted as final but should serve only as a guide until a more satisfactory observation can be obtained.

2. The type of examination covers a wide gamut of credibility, ranging from the obvious to the nebulous. Fracture determinations are often erroneously thought to be simple, but in fact are among the most difficult. Failure to visualize a fracture line by no means excludes a fracture. Chest examinations are another area in which

the novice may feel undue confidence, while the expert realizes his limitations. The determination that a chest film is "negative" requires the utmost sagacity. Most other types of examination are readily recognized as being difficult and complicated, especially those pertaining to the gastro-intestinal and genito-urinary tracts and the central nervous system.

3. In all types of examination, the detection and, if possible, the complete identification of a disease process or the exclusion of such is the goal. A positive finding is definite and needs no further discussion. If properly pursued and supplemented by further methods, the diagnosis ultimately will be attained, admittedly occasionally only at necropsy. The negative examination is quite different, for this may be truly negative or only apparently so. There is a very definite latent period in many disease processes between the onset of the disease and the time when it may be detected roentgenologically. A fracture without displacement may be seen only when callus forms, a rather common finding especially in the case of ribs. Osteomyelitis is notoriously late in being visualized, the clinical onset usually preceding the roentgenographic picture by ten to fourteen days. Other examples of latency in the appearance of positive findings by x-ray are too numerous to mention, but will occur to the reader. On the other hand there are some types of disease that are manifest radiologically before they are clinically. Pulmonary tuberculosis commonly is detected before the victim knows of its presence. Neoplasms of the various portions of the gastro-intestinal and genito-urinary tracts may be first discovered by so-called routine or survey roentgenographic examinations. Obviously, in these latter instances, the tumor has been present long before its discovery, and must have reached a certain size to be seen. Thus, knowledge of the natural history of each disease is most important and recognition of the latent period between onset of disease and radiographic visualization is essential. A negative examination does not exclude disease necessarily, but may merely fail to detect it.

4. Last, the skill of the examiner, in this case the radiologist, is to be considered. Assuming him to be of average ability, he is still quite human and fallible. It has been shown that a second interpretation of an examination by the same individual or another reduces the chance of error.

What can be done by the practitioner to secure the most reliable roentgen examination? First, provide your consultant, the radiologist, with a brief but adequate history of your patient, so that he may know the disease you suspect and its approximate duration, and may thus best determine the type of examination to be performed. Second, review, if possible, the films with the radiologist, at which time a more complete discussion of the case is possible. Only thus can the radiologist through the roentgenographic examination serve adequately.

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STANLEY M. WYMAN, M.D.

Editor's Note: Dr. Wyman is Radiologist, Massachusetts General Hospital, and Assistant Clinical Professor of Radiology, Harvard University.

Large Cysts of the Abdomen

Report of Seven Cases

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THE EXACT NATURE of large abdominal masses is frequently obscure in spite of all the aids to diagnosis available to us, and at the same time the possibility and method of removal are uncertain until the abdomen has been explored. This presentation will be limited to consideration of certain large cysts exclusive of those of ovarian origin. These cysts are usually benign, so cause trouble largely by encroachment on other organs. Their environment frequently makes removal impossible or hazardous, their benign nature precludes taking great risk at operation, so frequently other procedures must be used to obtain relief, such as external or internal drainage or marsupialization. There are numerous structures in the abdomen from which these cysts may arise and they may be of congenital origin, due to occlusion of ducts, or to parasitic or bacterial infestation.

The presenting symptoms from such lesions are variable. Some are recognized only by increasing size of the abdomen, others cause pain and still others interfere with the function of viscera such as the stomach, rectum and bladder. Complete and accurate diagnosis is usually impossible to make before operation but the presence of the mass indicates prompt exploration of the abdomen.

The following case reports illustrate some of these unusual conditions and indicate several different operative procedures which may be employed for relief.

The first two cases are of cysts arising in the urachus. This epithelial lined tube in the embryo runs from the bladder to the umbilicus and at birth is normally obliterated. As the bladder descends into the pelvis it is normally drawn into a firm cord traversing the anterior abdomen from umbilicus to bladder. This tube may remain completely patent, it may be obliterated at one end and open at the other, or it may be closed at both ends leaving a

varying amount of the tube patent. This last condition may result in the formation of a cyst of the urachus. The first case is a cyst resulting from persistence of the entire tube with closure at both ends. (Fig. 1) These cysts when of large size have



Fig. 1.—The urachus has closed at each end leaving the tube patent. (Reprinted from *Annals of Surgery*)

so involved the peritoneum and abdominal wall as to be irremovable.

Case 1: Mrs. A. B., an elderly white woman, was admitted to the Memorial Hospital. She presented a large abdominal tumor which had been present for several years without symptoms. Recently it had grown rapidly in size and caused pain. It was thought to be an ovarian cyst but at operation through a low midline incision the cyst was encoun-

From the Surgical Service of Medical College of Virginia, Stuart Circle, and McGuire V.A. Hospitals, Richmond, Virginia.

Presented before the Association of Surgeons of the Southern Railway System, Memphis, Tennessee, April 27, 1956.

Cases 1 and 2 were reported in *Annals of Surgery* 124: 1108. 1946.

tered before the peritoneum was seen. It was densely adherent to the abdominal wall and obviously could not be removed. It was opened and approximately 3,000 cc. of cloudy thick fluid was evacuated. The

and contained clear fluid. Microscopic examination of its wall showed fibrous tissue but no epithelium. (Fig. 4.)

The next case is without doubt of congenital origin,

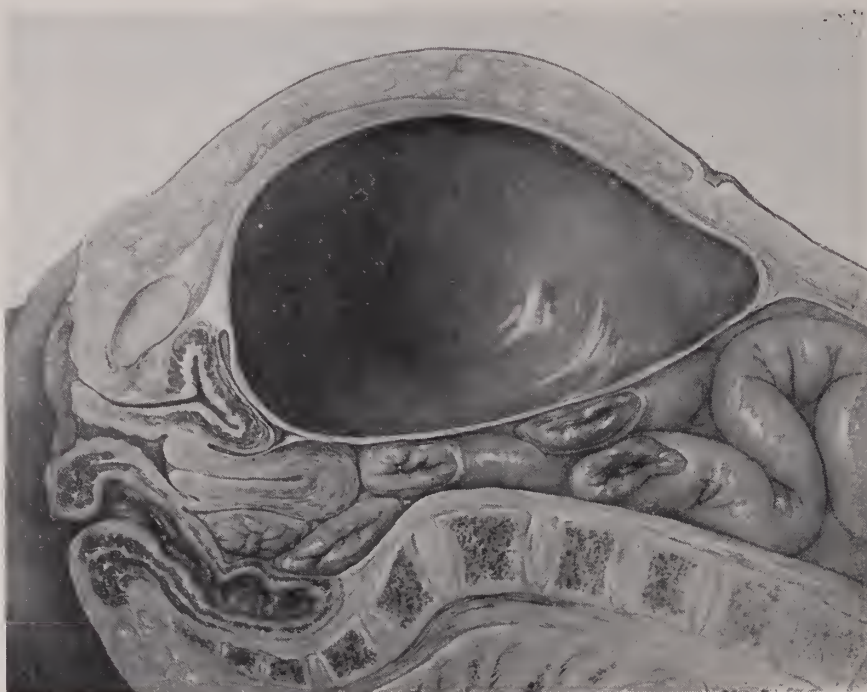


Fig. 2.—Large cyst resulting from patent urachus. (Reprinted from *Annals of Surgery*)

posterior wall of the cyst was obviously adherent to the peritoneum because coils of bowel could be identified through it. The entire incision was left open and the cavity packed with gauze. This packing was gradually removed, the external opening was kept patent, and the whole wound healed completely in about eight weeks. Microscopic examination of tissue from the wall of the cyst showed infected granulation and fibrous tissue but no epithelium. (Fig. 2)

When the patent area of the tube is small (Fig. 3) the cyst grows into the abdominal cavity, is attached to the anterior wall by a pedicle and can readily be completely removed.

Case 2: F.B.S., white, male, age 41, was admitted to Stuart Circle Hospital on September 5, 1945. He complained of pain in the upper abdomen. Examination revealed a smooth mass about the size of a large grapefruit in the midabdomen. This mass was freely movable and not tender. The navel was normal. The abdomen was explored through a midparamedian incision. The tumor was a thin-walled cyst attached to the underside of the navel by reflection of the peritoneum. The urachus thinned and disappeared into the wall of the cyst and below, to the bladder, it appeared normally obliterated. The cyst measured 15 cm. in diameter



Fig. 3.—Small part of urachus remains patent. (Reprinted from *Annals of Surgery*)

but the actual site of origin is difficult to determine. It was lined with stratified squamous epithelium without glands or hair follicles and apparently originated between the prostate and the rectum. The two embryonic structures here having stratified epithelium, from which it could have come, are the

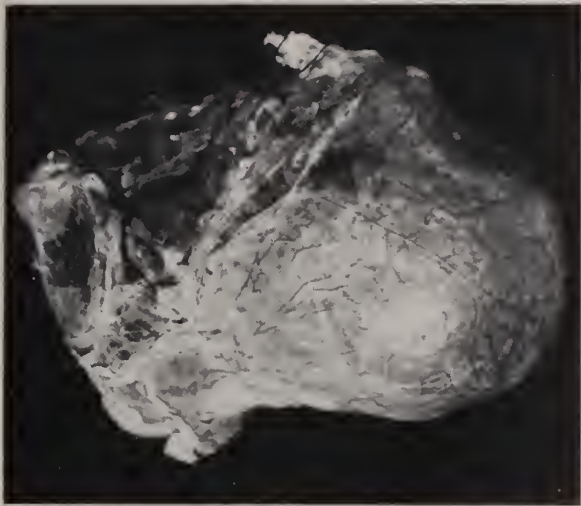


Fig. 4.—Cyst resulting from small patent portion of urachus. (Reprinted from *Annals of Surgery*)

Mullerian ducts and the bladder portion of the cloaca. In the male the Mullerian ducts are normally obliterated with the exception of the prostatic sinus (*sinus pocularis*). (Fig. 5) This minute struc-

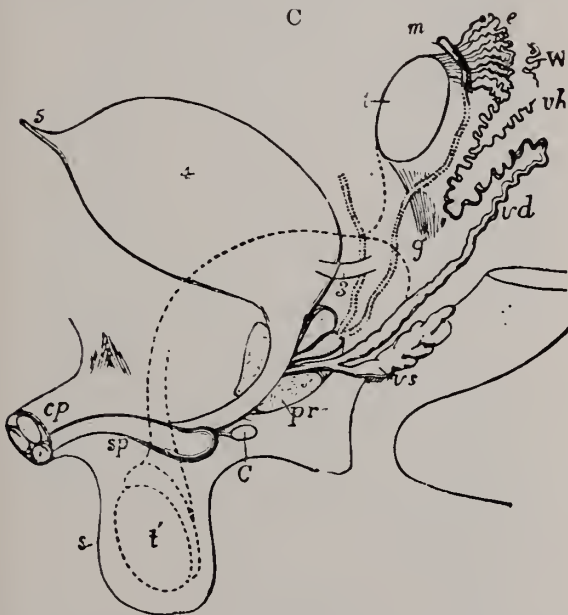


Fig. 5.—Diagram of male embryo showing the Mullerian Ducts which are obliterated except for the small sinus pocularis.

ture is lined with stratified epithelium and has no glands.

Origin from the cloaca could be only by an out-pouching from the bladder with complete separation from the bladder and ureters.

The third possibility of its being a dermoid cyst seems unlikely because of the absence of glands and hair follicles. It would, therefore, seem likely that it represents a persistence and growth of the Mullerian ducts to form an abnormally large prostatic sinus (*sinus pocularis*) which became cut off from the urethra and gradually enlarged into the cyst as it filled with desquamated epithelium.

Case 3: W. H., white, male, age 61, was admitted to Stuart Circle Hospital on June 7, 1948, complaining of weight loss and a mass in the scrotum. Physical examination showed him to be in good general condition and no abnormality was found in the abdomen. The scrotum was large due to a soft tissue mass in the right side which was not connected to the testicle; it had a pedicle which seemed to extend into the perineum. The penis and testicles were normal. On rectal examination a mass could be felt filling the pelvis and in consistency about the same as the mass in the scrotum. Barium enema revealed the rectum compressed by an extrinsic mass anterior to it. Gastro-intestinal x-ray examination was essentially negative and cholecystogram showed stones in a functioning gallbladder. The diagnosis was soft tissue tumor, probably neurofibroma, of dumb-bell shape presenting in the pelvis and scrotum. The abdomen was explored. The mass was a large cyst molded in the pelvis with thick wall and intimately connected to the rectum posteriorly and the prostate and seminal vesicles anteriorly with attachment to the pelvic wall in its entire circumference and apparently not connected with the mass in the scrotum. It was obviously irremovable. The upper surface was opened and the cyst found to be filled with white cheesy material resembling vernix caseosa of a newborn infant and when about 1500 cc. of this material had been evacuated the entire wall had the appearance of pink smooth skin of an infant. There was no hair or oily substance such as is usually seen in a dermoid cyst. The cyst was evidently of congenital origin and in as much as it was sixty-one years of age it was thought possible that refilling might again take a number of years. As much of the cyst as possible was, therefore, excised and the wall sutured forming again a cyst of approximately half the former size. The patient was perfectly comfortable after operation and the decreased size was confirmed by rectal examination. The pathological examination showed stratified squamous epithelium without hair follicles or sweat glands. About one year later he developed urinary difficulty and the mass could be palpated above the symphysis pubis. He was again explored and a

condition similar to that found before was encountered. It was, therefore, decided to marsupialize the cyst. Since this was done he has been very comfortable with an open sinus on the abdominal wall which is irrigated every few days in order to remove the material exfoliated from the epithelial lining. The scrotal tumor is unchanged and has not been explored. (Fig. 6)

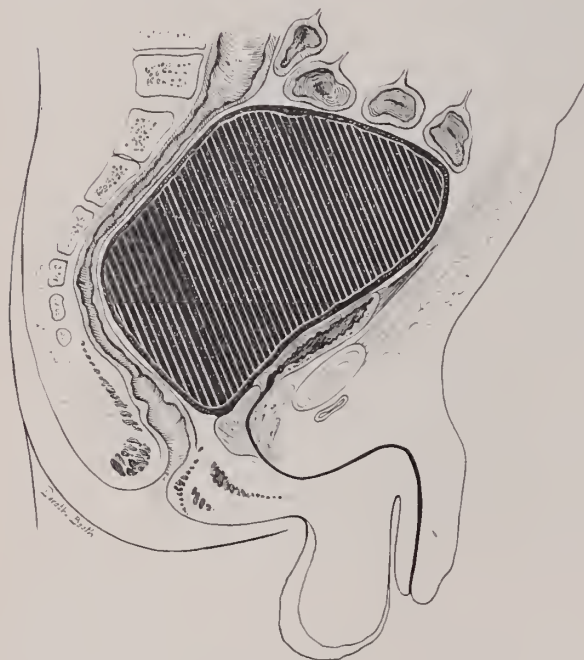


Fig. 6.—Diagram of the cyst, note close relationship to the prostate gland.

The next two cases represent cysts of peritoneal origin. One occurred in a young male and must be considered of neoplastic origin for it consisted of many small adherent cysts making a large mass in the pelvis while similar small cysts were present in the omentum and on the surface of the appendix. It probably should be classified as benign cystic mesothelioma. The other is the familiar but unusual cyst of the mesentery.

Case 4: R.W.K., white, male, age 21, was admitted to Stuart Circle Hospital on December 17, 1950. His complaint was pain in the lower abdomen and the only significant finding was a soft mass in the pelvis felt on digital rectal examination. Proctoscopic examination was negative and barium enema x-ray indicated pressure on the rectum by an extrinsic mass anterior to it. Exploration was done and when the peritoneal cavity was entered, there appeared to be no significant free fluid. The liver was normal in size, and there were no nodules palpated. The spleen seemed to be slightly enlarged, and there were a few adhesions around it. The

stomach, pancreas and kidneys were normal. In the pelvis there was a multiloculated huge hydatidiform mass made up of multiple cysts in a conglomerate mass each of which appeared to contain clear fluid. The entire mass measured about 8 inches in diameter and occupied the pelvis between the bladder and the rectum and presented up above the pelvic brim in the lower abdomen. There also were multiple small cysts involving the omentum and the distal portion of the appendix. There were numerous adhesions attaching the mass to the abdominal wall and to surrounding structures. By sharp and blunt dissection the entire mass was freed up and was removed from the pelvis leaving a moderate amount of raw surface in the pouch of Douglas. Because of involvement of the omentum with multiple small cysts, the omentum was resected from the region of the gastrocolic omentum distally. All vessels were ligated with fine and heavy cotton. The appendix was then removed in the usual fashion. The pathological report by Dr. Saul Kay was as follows:

Gross Description: The specimen is submitted as multiple peritoneal cysts, omentum, and appendix. The specimen consists of a huge mass of cystic structures varying in size from 1 cm. to 4 cm. These cystic structures are pale white in appearance and contain a clear serous like material, each is bound to the other by many fibrous adhesions. Also submitted is a piece of omental tissue which is covered by the same small cystic structures, the largest of which, in this omental specimen, is 1 cm. in diameter. This cystic mass weighed a total of 580 gms. The appendix consists of a tubular structure measuring 6 cm. x 1 cm. The exterior surface is smooth, shiny, glistening, pale pinkish-white in appearance with an occasional hemorrhagic streak running through it. Attached to its peripheral end is a small amount of fat. Also attached to the fat at the peripheral end are two cyst like structures, the largest of which measures 1 cm. in diameter. The lumen is patent throughout grossly and contains a small amount of dark brown fecal material. The mucosal surface is pale tan in color. Representative sections were made from this.

Microscopic Description: Multiple sections through the cystic mass show variously sized cysts lined by mesothelial cells. These cells are flattened in some areas, but of the typical polygonal shape in others. Some of the cysts also show mesothelial proliferation of the lining. The cysts are generally filled with eosinophilic granular material, but sometimes there are polymorphonuclear leukocytes and

foamy histiocytes. The cysts are supported by an edematous fibrous stroma, containing infiltrations of lymphocytes and other mononuclear inflammatory cells. A section through the fatty omental tissue shows similar cysts. The appendix likewise shows similar cysts in the meso-appendiceal fat. The sub-serosa of the appendix shows many congested blood vessels and sometimes there are perivascular collections of lymphocytes. The wall of the appendix and the mucous membrane are intact. There is abundant lymphoid tissue with large active germinal centers.

These cysts are of mesothelial origin and, therefore, should be classified as peritoneal cysts. They are often seen in females, in pelvic inflammatory diseases, and are generally noted on the fallopian tube and the serous surface of the uterus. These are generally quite small and few in number. The multiplicity and size of these cysts, in the present case, is rather unusual. It might be added that the absence of a chitinous membrane and hooklets within



Fig. 7.—Photograph of multilocular mesothelial cystoma.

the cyst contents, rules out that these cysts are of parasitic origin.

Pathological diagnosis: Peritoneal cysts of pelvic peritoneum, omentum, and appendix.

The patient made a good recovery and two years later he was perfectly well. (Fig. 7)

Case 5: A.B.C., white, female, age 55, was admitted to Stuart Circle Hospital on August 17, 1946, complaining of pain in the left abdomen and a mass in this area. She had undergone four previous laparotomies, the last twelve years ago. The essential physical findings were limited to the abdomen where a soft mass was found in the left side extending from the costal margin to the brim of the pelvis. Barium enema indicated extrinsic pressure on the left transverse and descending colon. Her general condition was good. At operation there was a large cyst measuring about 10"x6", extending from the undersurface of the liver opposite the middle of the kidney, down to the pelvis. It was between the

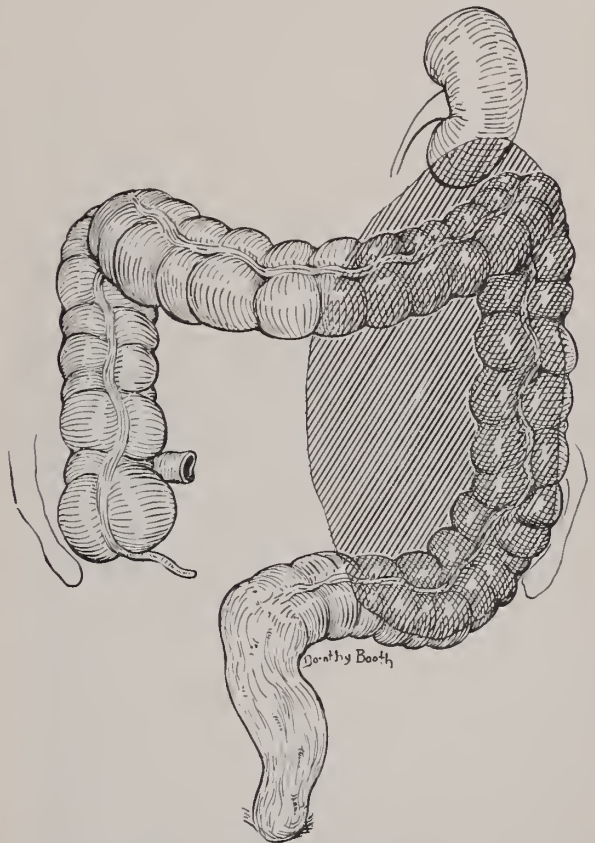


Fig. 8.—Diagram of the mesenteric cyst showing the relationship to the mesothelial cystoma.

leaves of the peritoneum of the mesentery and of the descending mesocolon. It was dissected out entirely. The cyst broke in the process, was found to contain clear fluid, portions of which coagulated to jelly-like substance. The peritoneum was re-attached to the border of the descending colon. The

abdomen was filled with adhesions. A complete exploration was not carried out, but the liver was free of metastasis, the stomach appeared normal and the pelvic structures also appeared normal. The left kidney was normal to palpation with the exception of what appeared to be unusual narrowing in its center. (Fig. 8)

Pathological report: The specimen consists of a cyst which was previously opened. It has a wall that is tissue paper thin in some places and 1 cm. thick in other parts. The wall is firm and fibrous and appears grossly to be an ovarian cyst.

Microscopical description: Fluid from the cyst is made up of red blood cells with scattered lymphocytes and polys. Section of the wall of the cysts shows this to be composed of dense fibrous tissue in which there are a number of scattered round cells. The lining of the cyst is also fibrous tissue and shows spaces occupied by cholesterol crystals, as well as scattered foreign body type giant cells.

Diagnosis: Mesenteric cyst-benign.

This patient now, ten years later, is entirely well. The cyst being entirely retroperitoneal was probably not related to the previous laparotomies, but due to some abnormal development of the peritoneum.

Primary tumors and cysts of the liver are quite rare. Cysts may be of ductal or parasitic origin. The case to be presented had a thin wall, was filled with thin clear fluid and in the wall were elements of liver structure. There was no evidence of parasitic origin so it must have originated by occlusion of a section of the duct system. It seems likely that it was of congenital origin with a slow accumulation of fluid until it reached its enormous size found at operation. Cysts of this type may be multiple, but in this case the liver otherwise was entirely normal.

Case 6: H.C.F., white, male, age 60, was admitted to the Medical College of Virginia Hospital on July 25, 1925. He had acute upper abdominal pain attributed to incarceration of a moderately large epigastric hernia. This hernia was found, but evidently did not contribute to the present trouble. There was no gaseous distention of the abdomen, but a very large mass was found in the right upper abdomen which extended upward beneath the ribs, downward below the navel, well to the left side and backward and laterally into the flank. It seemed to be continuous with the liver. It was smooth and rather soft. A flat x-ray plate showed a soft tissue mass as described. Gastro-intestinal x-ray showed marked leftward displacement of the stomach and duodenum. The diagnosis was cyst of the liver or retroperitoneal lipoma. At operation when the

peritoneum was opened the thin walled cyst was unfortunately also opened and clear fluid flowed out. Most of this was recovered by suction, 3000 cc. being collected. Probably another 1000 cc. was spilled. After evacuation the cyst was found to occupy the right lobe of the liver and extended into the abdomen below the liver surface. When empty the cyst measured 22 x 15 cm. The fluid was thin and perfectly clear, the wall of the cyst was smooth and thin with a very broad attachment to the liver. Immediate section by the pathologist was "The section shows a thickened fibrous wall in which can be seen a few liver cells and dilated bile ducts." Complete removal of the cyst would have required resection of the liver which was thought not justified for a benign non parasitic lesion. A considerable amount of the free portion of the cyst wall was excised and the remainder was marsupialized by suturing the cyst wall to the skin. The cavity was packed loosely with gauze. Postoperatively the patient did well and the sinus gradually closed until it was healed after six months. (Fig. 9)



Fig. 9.—Photograph of cyst of right lobe of liver opened at operation.

Nine months after operation there was no evidence of recurrence of the cyst and the patient appears perfectly well.

Cysts of the pancreas are of two types, the True Cyst which is similar in origin to that in any glandular organ, and the Pseudocyst which is walled off

pancreatic juice and blood resulting from injury or inflammation.

The True Cyst is very rare but the Pseudocyst is seen not infrequently. At the McGuire Veterans Administration Hospital we have had an unusually large experience with the latter variety. The most frequent presenting symptom is pain and, besides palpation of the mass, the most important diagnostic sign is widening of the duodenal loop seen on gastrointestinal x-ray examination.

The only successful treatment is surgical and may consist of total excision, simple drainage, marsupialization, internal drainage, or partial pancreatectomy with removal of the cyst. The method of attack will depend upon the individual case, the type of cyst, and the anatomic condition. Ideally the cyst may be amenable to excision, but most cysts are the pseudo-cyst variety and cannot be excised. If the cyst is adherent to the anterior abdominal wall, simple drainage is chosen. Marsupialization is used if the cyst is not adherent, the cyst wall being sutured to the skin for drainage externally. If this or simple drainage is not practicable, the cyst may be anastomosed to the jejunum for internal drainage. Partial pancreatectomy is obviously limited to those cases in which the cyst involves the distal part of the pancreas and can be excised. Marsupialization of the cyst has been the treatment of choice in this hospital and the results have been uniformly good.

Case 7: L.L.H., white, male, age 24, was admitted to the McGuire Veterans Administration Hospital on October 7, 1950, with severe epigastric pain of eighteen hours duration which did not radiate. He was nauseated and had vomited twice. The patient had had three similar episodes which were much milder in the three months prior to admission.

The patient appeared acutely ill, had a temperature of 99.4, and the positive physical findings were limited to the upper abdomen where there was moderate tenderness, slight rebound tenderness, and slight muscle spasm in the epigastrium.

The pertinent laboratory findings included a WBC of 25,000 with 77% PMN's and a serum amylase of 155 units. X-rays of the abdomen were essentially negative.

After admission the patient was treated by gastric suction and intravenous fluids with a tentative diagnosis of acute pancreatitis. However, the following day x-rays of the abdomen showed gaseous distention of the duodenum and proximal jejunum with fluid levels. The temperature rose to 102, and the abdominal tenderness, pain and spasm became progressively worse. Eighteen hours after admission

the patient underwent an exploratory laparotomy and was found to have acute hemorrhagic pancreatitis. The gallbladder and bile ducts appeared normal and the abdomen was closed without drainage. Gastric suction and intravenous fluid therapy were continued for two weeks postoperatively, but the patient continued to have a rather stormy course with nausea and vomiting and episodes of distention. Three weeks after the original exploration an epigastric cystic mass was felt which was thought to be a pancreatic pseudocyst. X-ray findings with barium studies were consistent with this diagnosis and showed almost complete pyloric obstruction.

On November 15, 1950, thirty-eight days after the exploratory laparotomy, a large pancreatic pseudocyst was marsupialized through the upper part of the laparotomy incision. The brownish fluid obtained at this marsupialization showed an amylase of 2300 units. Three months after operation the patient was asymptomatic and had only a few cc's of drainage daily from his abdominal opening.

Following discharge the patient did well, the sinus gradually closed, and the patient was asymptomatic. One year later he was readmitted because of recurrent episodes of colicky pain in the right upper quadrant of his abdomen and x-rays revealed a non-functioning gallbladder. A cholecystectomy was performed for chronic cholecystitis and cholelithiasis. (Fig. 10)



Fig. 10.—Gastrointestinal x-ray showing wide arch of duodenum around the cyst of the pancreas.

SUMMARY

Seven large intra-abdominal cysts of unusual nature are reported. The diagnostic difficulties encountered are obvious. These cysts were all benign.

Three of them were completely removed and four were marsupialized. In only one instance was there a persistent sinus and this undoubtedly was due to the epithelial lined wall of this cyst. The favorable results of marsupialization emphasizes the wisdom

of using this simple procedure rather than attempting a hazardous excision for a benign lesion.

805 West Franklin Street
Richmond, Virginia

Hazards of Low-Protein Diets

Two physicians and the American Medical Association's council on foods and nutrition have warned against the indiscriminate use of new low-protein diets. They pointed out serious hazards which have not been made clear in nonmedical publicity about the so-called "Rockefeller" or "fabulous formula" diets.

Dr. Norman Jolliffe, director of the New York City department of health's bureau of nutrition, questioned the safety and effectiveness of the diets, while the A.M.A. council and Dr. Vincent P. Dole, New York, urged that persons use the diets only if they are under strict medical supervision. Their statements appear in the August 25 Journal of the A.M.A.

All three reports agreed that the diets would be dangerously low in protein content if not used exactly as prescribed and after a doctor's investigation of the individual's condition. Dr. Jolliffe, in fact, said the diets even "as is" are below minimum standards for maintaining body structure and function.

In addition to these warnings, Dr. Dole added a note of discouragement: even the patients on whom the original diets were tested successfully regained weight when they quit the diets.

The diets differ from both of the most common methods—those which call for low-calorie diets balanced in nutrition, and those requiring drastic cuts in fats, sugars, and starches and increases in proteins. Based on experimental diets developed by Dr. Dole and his colleagues at the Rockefeller Insti-

tute of Medical Research, both diets call for lowered protein intake.

One diet, called "pleasant diet," "crash diet," or "fabulous formula," is a liquid combination of corn oil, evaporated milk and dextrose. The other, called the "Rockefeller diet" uses regular foods but the council pointed out that the foods chosen contain little protein.

The council report on the "Rockefeller diet" said that "the experimental character of such an abnormal diet makes it imperative for the physician to recommend its use only after careful investigation. The advocacy of the use of this diet by nonmedical persons is condemned because of its possible harmful effect under certain situations."

Dr. Jolliffe said the protein content of either diet is below minimum requirements for a normal individual. Anyone remaining on the diets for long could suffer protein deficiency, its accompanying nitrogen imbalance, and the resulting serious injury to body tissue. In addition, the diets are short in certain amino acids, the "building blocks" of the body, and are "woefully inadequate" in iron.

The statements criticized the publicity given to the diets in recent articles in national non-scientific publications. They noted that the articles carried insufficient warnings about the hazards of unsupervised use of the diets. The council statement suggested that editors of magazines could cooperate in "this important matter" and make sure "the health of the people is preserved" by urging the proper safeguards.

Dissecting Aneurysm of the Aorta

With Neurological Involvement

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RECENTLY, the clinical and pathological aspects of dissecting aneurysm of the aorta have been studied extensively, although the history of such lesions dates from the sixteenth century. It is of historical interest that an autopsy on King George II in 1761 is said to have revealed a dissecting aneurysm of the arch of the aorta.

Neurological symptoms in aortic dissections are often predominant. Weisman and Adams¹, in 1944, reviewed thirty-eight cases and neurological changes were elicited in eighty per cent of these cases. It was also reported that the diagnosis was correctly made in approximately one-half of the thirty-eight cases before death. Moersch and Sayre², in 1950, analyzed twenty-six cases. In twelve of these twenty-six cases (46%) some type of neurological involvement was found.

Weisman and Adams¹ classified the neurological involvement on the basis of ischemic necrosis of the brain, spinal cord or peripheral nerves. Blood to the brain is supplied by the internal carotid arteries, and the vertebral arteries which unite to form the single basilar artery. Thus, it can be seen that a dissecting aneurysm, which involves the proximal portion of the aorta, may obstruct the orifice of one or both common carotids producing cerebral ischemia with resulting stroke-like symptoms. A cerebro-vascular accident was the admission diagnosis in six of the twenty-six cases reviewed by Moersch and Sayre². Blood to the spinal cord is supplied mainly by the anterior spinal artery and the eight or nine radicular arteries which are irregularly distributed along the spinal cord. The radicular arteries are derived from the paired intercostal arteries which arise from the aorta. Thus, a dissection of the thoracic or abdominal aorta may interrupt a portion of the blood supply to the cord resulting in sudden spinal cord symptoms. Scott and Sancetta³ reported a case with bloody spinal fluid and sub-arachnoid block. Autopsy revealed that all of the intercostal arteries had been severed by the dissection with hemorrhagic infarction of the cord. Involvement of the abdominal aorta with dissection into the iliac and renal vessels is not uncommon. Dissection into the iliac vessels resulting in numb-

ness of an extremity or extremities may occur due to ischemic necrosis of the peripheral nerves.

Glendy, Castleman, and White⁴, in 1937, reviewed nineteen cases from a clinical and pathological standpoint. In their article, these authors emphasized the important diagnostic features of dissecting aneurysms.

Symptoms are variable and usually sudden in onset. The most common is severe pain in the chest, back, abdomen, or extremities. Migration of pain from one area to another is common. Stroke-like or other bizarre neurological symptoms may appear early, associated with the pain. There is usually no significant temperature elevation. The leukocyte count is frequently elevated. An aortic murmur is sometimes present. The electrocardiogram may be normal, but if proximal dissection occurs involving the coronary orifices, the signs of acute myocardial ischemia may be present. Enlargement of the aortic shadow on roentgenograms, if present, aids in the diagnosis. There is usually a history of hypertension. The blood pressure may differ in the arms and, if the dissection involves one or both iliac arteries, there may be absence of pulsations and blood pressure in one, or both, lower extremities. Gore and Seiwert⁵ found the vessels to the lower extremities were involved in nineteen of eighty-five cases reviewed. Nessim found⁶ differences in pulsations of the carotid arteries an important diagnostic sign.

Death occurs in most cases as a result of rupture of the aneurysm into the pericardium, the thoracic cavity, or the abdominal cavity. At times, the rupture may be into the aortic lumen without death. Occasionally healing takes place with formation of the so-called "double barrel" aorta. With this development a patient may survive for many years.

At autopsy there is usually an intimal tear with a dissection of blood along the media of the aorta. However, Gore⁷ reviewed eighty-five cases from the Army Institute of Pathology and reported that twenty-three had no intimal tear. This seems to add support to the idea that intra-mural hemorrhages occur as a result of rupture of the vasa vasorum with medial necrosis. Burchell⁸ suggests that aortic

dissections are dissecting hematomas and that the terminology of dissecting aneurysms is incorrect. Others link dissecting aneurysms with Erdheim's medial necrosis of the aorta. In Marfan's syndrome there may be necrosis of the aorta in addition to the other congenital anomalies associated with the syndrome. Thomas⁹ et al. reported three cases of aortic aneurysm associated with Marfan's syndrome. Two of these were dissecting aneurysms and one was a fusiform aneurysm.

The following cases have been selected to demonstrate the varied neurological involvement that may occur in dissecting aortic aneurysms.

Case 1.—A sixty-four year old white male was admitted to the hospital on September 24, 1954, complaining of upper abdominal pain and weakness of both legs present for approximately one hour. Several minutes after ascending two flights of steps, the patient was seized suddenly with a severe pain in the anterior neck which radiated down the mid chest into the abdomen. The onset of pain was followed in a few seconds by loss of the use of both lower extremities. He was seen in a short time by a physician who found paralysis of the lower extremities and sent him immediately to the hospital. On admission, thirty minutes later, examination disclosed tenderness over the gallbladder region, weakness of both lower extremities, decreased sensation in the left lower extremity to pin prick, and hyperactivity of the right patellar reflex. The pain in his neck and chest subsided. The blood pressure was 160/90 and had been in this range for several years.

Past history revealed some dizziness for the previous three or four years which was improved by dramamine. He had been operated upon three years prior to this admission for benign prostatic hypertrophy by a trans-urethral procedure. A previous electrocardiogram was normal.

He was seen in neurological consultation approximately an hour after admission to the hospital at which time he was alert and complaining of low back pain. He was able to move his lower extremities and only slight weakness was present. The tendon reflexes were hypoactive. There were no pathological reflexes and sensation was unimpaired. The rest of his neurological examination was essentially negative. Pulsations in the vessels of the lower extremities were considered normal.

The next day, he was free of all pain except for mild discomfort in the upper abdomen. Movement and sensation of the lower extremities were normal. Roentgenograms of the chest and abdomen

were normal. The white blood count on admission was 15,000 with 85% polys and on the second day 22,000 with 87% polys. Urinalysis was negative. Electrocardiogram was reported within normal limits.

During the second night he rested comfortably on nembutal gr. 1½ at bedtime. At 6:00 a.m. he called for a nurse because of severe chest and abdominal pain. A few minutes later he became unconscious and died at 6:25 a.m.

Post mortem examination revealed a small perforation through the intima of the ascending aorta which was located about 2 cm. above the aortic valve. There was complete dissection of the wall of the aorta from the ascending portion through the descending portion and into both iliac vessels. The dissection began at a point 2 cm. above the cusp of the aortic valve on the anterior surface through a 1 mm. break in the intimal surface. The blood had dissected into the wall of the pulmonary arteries to the hilum of the lung and into the left renal artery wall to the hilum of the kidney. The dissection had extended three-quarters of the circumference of the aorta in all portions leaving the anterior one-third of the wall undissected. There was basophilic degenerative material throughout the media that was particularly noticeable in sections taken from the ascending aorta. The coronary arteries were focally narrowed by atheromata. The heart weighed 330 Gm. and the wall of the left ventricle was increased to 25 mm. in average thickness. The pericardial cavity was obliterated by fresh blood. This was due to a perforation in the wall of the aorta extending from the media through the adventitia and into the pericardium.

Comment: This patient had a sudden onset of paralysis of the lower extremities suggesting ischemia of the spinal cord caused by the aortic dissection. The paralysis had almost subsided within an hour, and had entirely subsided in twenty-four hours. It would have been of interest had the spinal cord been included in the post mortem examination.

Case 2.—A thirty-three year old colored male whose history dates from 1953, when, at the age of thirty-one, he complained of bloody urine. Urological study revealed three squamous cell papillomata of the urethra which were resected. Pathologically, these were benign. Blood pressure was normal at this time. Serology was negative.

In October 1954, he began to complain of headaches and lethargy and was found to have a blood pressure of 170/110. He was put on Serpasil, 1 mgm. daily. After one month the blood pressure was 130/80.

He was next seen in July, 1955, complaining of a visible growth in the urethral meatus. This was removed and pathologic study revealed another benign squamous cell papilloma of the urethra. The blood pressure at this time was 120/80.

He was not seen again until January 6, 1956, when he was admitted to a hospital in his home town. Four days prior to this admission, he complained of headaches with impaired memory. He was, however, able to continue at his job as mechanic in a local garage. He was seen earlier on the morning of admission by his employer who noticed nothing unusual. Thirty minutes later he drove into a driveway and asked that a physician be summoned immediately. When help arrived, he was found unconscious and was immediately transferred to the hospital.

Examination revealed a well developed, well nourished, colored male who could be aroused for questioning but who was disoriented as to time, place and person. There was slight nuchal rigidity and both pupils were moderately dilated. The eye-grounds and deep tendon reflexes were normal bilaterally. Sensory status, station and gait could not be evaluated. There was a medium pitched, short systolic murmur heard equally well at base and apex of a normal sized heart. The murmur was not transmitted. Heart sounds were otherwise normal. Cardiac rhythm was normal with a rate of sixty per minute. The blood pressure was 80/60. A lumbar puncture was done and 10 cc. of clear, colorless fluid was removed. The spinal fluid pressure was not recorded.

Nine hours after admission, the pulse became thready and weak and he developed Cheyne-Stokes respirations. After being placed in an oxygen tent, there was immediate temporary improvement, but two hours later the blood pressure was unobtainable. After an injection of coramine, the blood pressure returned to 100/80, pulse regular at fifty-eight per minute and his condition seemed to improve.

The following laboratory data were obtained: RBC 4,680,000; WBC 17,000; Hbg 12.5 Gms.; Diff.: Stabs—3, Segs—76, Lymphs—16, Monos—5. On smear, platelets appeared to be somewhat increased. Red cells were normocytic and normochromic. Sick cell preparation revealed no sickling after twenty-four hours. Spinal fluid cell count was 30 lymphocytes per cu. mm. Urinalysis: Sp. gr. —1.018, Alb.—2 plus, Sugar—negative, WBC—5 to 6, Granular casts—4 to 6, Hyaline casts per hpf—2 to 3. BUN 24, blood sugar 135.

Approximately eighteen hours after admission,

the first change in neurological status was noted. State of consciousness was unchanged. A flaccid weakness of both right extremities was present. Deep tendon reflexes were more active on the right than the left. Babinski and Hoffman's signs were negative. Nuchal rigidity was absent. Extra ocular movement and pupil reflexes were normal. Sensory examination could not be evaluated.

During the next twenty-four hours, his condition remained unchanged. He slept restlessly and on two occasions complained of headache, chest and abdominal pain.

On January 8, 1956, approximately thirty hours after onset, he was seen in neurologic consultation. At that time, he was extremely restless but did answer questions and stated that he had headache, chest pain and pain in his abdomen. He had a right hemiparesis and a right homonymous hemianopsia. There was a questionable left facial weakness but this was indefinite because of difficulty in examining the patient. The optic discs were normal. The tendon reflexes in the right arm were slightly less active than those on the left, but the tendon reflexes in the right leg were slightly more active than those on the left. There was an equivocal Babinski on the right. Spinal puncture revealed a clear fluid with a pressure of 210 mm. of water. He was relaxed when this was done and it was thought to be an accurate pressure reading. The spinal fluid cell count revealed nine cells and a protein of 42 mgm. per cent. An electrocardiogram was interpreted as normal. Because of the homonymous hemianopsia, the right hemiparesis and the increased spinal fluid pressure, it was felt that this patient needed further neurological studies and he was transferred to a Roanoke hospital. An attending physician accompanied the patient on the trip and stated that he withstood the transport well and had no ill effects, but one hour after admission, he died rather suddenly. The resident physician and an attending nurse reported that the patient had some type of "drawing spells" of the body and extremities, and died within a matter of a few minutes after the onset of these "spells". On this admission, the blood pressure was 190/20 in the right arm and 110/80 in the left arm.

Family history revealed the patient to be one of nine children. Four of the siblings had died suddenly between the ages of twenty and forty years without obvious cause. No autopsy was obtained on any of these relatives. Two of his sisters had died suddenly within a week or two of the patient's death. One of these had been known to have a

saccular aneurysm of the thoracic aorta.

Post mortem examination revealed the pericardial sac to be greatly distended and to contain about 500 cc. of clotted blood. This blood clot obviously came from the first portion of the aorta which showed a dissecting aneurysm. The aortic dissection began just above the middle cusp of the aortic valve and dissected to the left subclavian and common carotid arteries. The inner part of the aortic wall had telescoped on itself to some degree and this was particularly apparent at the orifices of the left subclavian and left common carotid arteries. The dissection continued along these arteries as far as explored. There was a large clot formation in the left common carotid artery which pushed the dissected intima against the opposing wall so that the lumen of this vessel was almost completely occluded. The orifice of the right common carotid artery was open. The break which had permitted the blood to enter the pericardial cavity occurred at about the beginning of the dissection. The heart weighed 450 Gms. The left ventricular wall measured $1\frac{3}{4}$ cm. in thickness and the right $\frac{1}{4}$ to $\frac{1}{2}$ cm. in thickness. There was an area of ecchymosis in the area of the foramen ovale. Examination of the brain revealed no infarct or other gross abnormalities.

Comment: This patient presented symptoms suggesting some type of cerebral vascular lesion at the time of onset. The clear spinal fluid ruled out a subarachnoid hemorrhage; however, the increased pressure suggested the presence of an intracranial mass lesion. Surprisingly, in spite of definite neurological changes, there were no gross abnormalities on post mortem examination of the brain. The neurological changes, must have been due to cerebral ischemia resulting from occlusion of the left common carotid artery. Case 1 had no cerebral involvement and all neurological symptoms were referable to a spinal cord lesion. Both of these cases point out rather well the variable neurological symptoms that may be associated with dissecting aneurysms. It is also of interest that this patient (Case 2) was one of nine children and that four of the others had died between the ages of twenty and forty years suddenly without known cause. There was definite roentgenographic evidence that one sister had a large saccular aneurysm of the thoracic aorta. She had died suddenly but no autopsy had been obtained.

Case 3.—A sixty-two year old white male was admitted to the hospital because of pain in the low back, right groin, and down the posterior aspect of the right thigh of approximately twenty-four hours

duration. There was also pain across the abdomen at the level of the umbilicus. Approximately two hours after admission he first complained of weakness and numbness of the right leg.

On examination, the blood pressure was 180/100 and the heart rate was 120 per minute. There was a soft systolic murmur and a slight irregularity of the heart rhythm. Examination of the lungs revealed rales in both lower bases. The right leg was cold and there were no pulsations in this extremity. Pulsations were good in the femoral, popliteal, and the foot vessels on the left. His temperature was 99.6° on admission. WBC was 14,500; RBC—4,990,000; NPN—100; urine revealed 2 plus albumin, WBC 38 per H.P.F., specific gravity 1.028. The WBC was 20,000 on the day after admission and 17,200 two days after admission. Sedimentation rate was 1 mm. per hour. Electrocardiographic findings were consistent with bundle branch block.

On the second hospital day, the patient was mentally alert and was comfortable. Blood pressure was 120/80, pulse 120, and the heart apex was in the midclavicular line. Coarse rales were present throughout both lungs. Examination of the back was negative and the abdomen soft. There was only slight motion of the right leg. This leg was cold and pulseless. Pulses were normal in the left lower extremity. Examination of the reflexes in the extremities was not recorded. A tentative diagnosis of dissecting aortic aneurysm was made. He was treated symptomatically and expired suddenly on the fourth hospital day.

Post mortem examination revealed that the pericardial cavity was partially filled with 100 cc. of fresh blood. There was hemorrhagic extravasation into the epicardium over the right auricle. The ascending arch of the aorta was dilated and the surface was discolored and granular. The heart was enlarged and the apex was 1 cm. outside of the midclavicular line. Upon opening the heart, the chambers seemed to be slightly dilated. The right ventricular wall measured $\frac{1}{2}$ cm. and the left ventricular wall $2\frac{1}{2}$ cm. in thickness. The musculature was firm and there were a few small scars present. The coronary arteries were patent, but narrowed at many points by atheromata. There was a hemorrhagic extravasation into the right auricle at the base of the superior and inferior vena cava. This communicated directly with a dissecting aneurysm of the aorta which occupied its entire length. There was a transverse split in the wall of the intima 2 cm. in length located about 2 cm. above the aortic valve. From the top of the arch downward,

a false barrel had completely compressed the normal lumen. It apparently carried the main blood supply. In the ascending portion the barrels were approximately the same size. The dissection extended along the right iliac, the right subclavian, the right carotid, and the left renal arteries. Thrombi completely filled the false barrel of the right iliac and the left renal arteries. There was no actual point of perforation into the pericardial cavity or into the right auricle but the hemorrhages and blood noted were obviously due to the aneurysm. Microscopic examination of the arterial sections revealed that most of the media of the aorta was replaced by scar tissue. An examination of the brain was not done at the family's request.

Comment: This patient was alert and had nothing suggesting involvement of the brain. There was also no significant involvement of the spinal cord unless the weakness and numbness of the right leg could possibly be explained on this basis. It is most likely that this was on the basis of ischemia of the extremity rather than of the spinal cord since he had no involvement of the left leg. Although this does not seem to be a case in which the nervous system is primarily involved, the initial complaint was weakness, numbness and pain in the right leg and many neurological lesions would have to be considered in the differential diagnosis.

Case 4.—A sixty year old railroad engineer was hospitalized in a neighboring city on October 1, 1951, because of severe low back pain which extended down the back and inner aspects of both legs of twenty-four hours duration. The back and leg pain developed after riding in the locomotive of a train on a two hundred and twenty-five mile trip. There was no history of previous similar complaints. On admission to the hospital, he was cyanotic and in extreme pain. His blood pressure at that time was 170/100, pulse 100 and respirations 30. During the first week of hospitalization, his temperature ranged around 102° and he had frequent bouts of severe abdominal and back pain radiating down both legs. The pain was more frequent and severe in left leg.

Laboratory studies revealed that the white cell count remained between 15,000 and 20,000. Admission urinalysis was negative but one done eighteen days after admission to the hospital contained many red blood cells. During the third hospital week his white blood count dropped to normal and he had developed a moderate anemia.

Roentgenograms of the chest revealed a large

radiopaque shadow in the region of the arch of the aorta which was thought to represent an aneurysm. The thoracic aorta was quite tortuous. The size of the heart was within normal limits. Flat films of the abdomen revealed no abnormalities. The electrocardiogram revealed a sinus arrhythmia with evidence of left ventricular strain and hypertrophy. A diagnosis of dissecting aneurysm was made and he was treated symptomatically.

When it was felt that the patient was able to travel safely, he was transferred to a Roanoke hospital on October 31, 1951. He continued to complain of pain in the low back. He remained in the hospital from October 31, 1951, to November 17, 1951, during which time his pain became much improved and he developed no further symptoms. He was discharged, by ambulance, since there was no evidence of further dissection and it was felt that he could be adequately cared for at home.

About five months after the patient was discharged from the hospital and was apparently getting along fairly well, he was seized with a rather sudden epigastric pain. He was seen by a physician one half hour after onset. The pulse was 112, respirations 20, and blood pressure 142/100. He was cold, clammy, and ashen, and, his shock-like appearance seemed to be out of proportion to the blood pressure findings. He was confused but his neurological examination was otherwise negative. The femoral pulse was absent on the left. He was immediately hospitalized, treated symptomatically, and died one month later. During his entire hospitalization he was confused, but still complained of pain in the abdomen and extremities.

Post mortem examination revealed the ascending arch of the aorta to be slightly larger than normal. There was a dissecting aneurysm of the aorta which extended downward to the iliacs and upward to the descending arch. Here it abutted against the left subclavian artery. There was an ostium 1½ cm. in diameter located 3 cm. below the left subclavian artery through which two separate barrels could communicate. The original barrel was progressively compressed as it descended but shortly below the renal valve it gradually enlarged and measured 7 cm. across in the lumbar region. The wall measured 2 to 4 cm. in thickness and contained a thrombus. The barrel extended to below the bifurcation of the aorta as an organized hematoma. Apparently there had been several ruptures through this region at various times. The original one formed a hematoma extending to the crest of

the pelvis. An additional hematoma was extending into the pelvis. The walls of these two hematomas were well organized and were continuous with the aorta. There was also a rupture into the left gutter with organization. There was also a terminal rupture into the right gutter. The left iliac artery contained a thrombus continuous with that of the main body of the aorta which extended down the iliac artery for 2 cm. The lower edge was rounded and smooth. The pleural and pericardial cavities were dry, but the peritoneal cavity contained 1500 cc. of freshly clotted blood.

Microscopic examinations of sections of the aorta showed various thrombotic stages. Sections through the lower abdominal aorta showed an old thrombus completely filling the lumen. The wall contained several atheromatous plaques and was infiltrated with round cells. The media was somewhat disrupted. It contained an accumulation of round cells and plasma cells. There was a splitting of the media to form the second barrel. Other sections showed more recent thrombi and more recent inflammatory processes. There were a number of pigmented microphages and much fibrocytic activity. An examination of the nervous system was not done.

Comment: This patient presented an initial complaint of rather severe low back and bilateral leg pain after a rough train ride. This suggested that he possibly had a lesion in the lumbar spine with nerve root pressure, and the diagnosis could not be established until some time after hospitalization. This case presented symptoms that are not too uncommon in dissecting aneurysms, *i. e.*, pain in the low back and lower extremities. This patient had repeated ruptures and lived for almost five months from the time of onset of his illness.

Case 5.—A fifty-five year old white female was admitted to the hospital on July 14, 1948, because of severe abdominal pain and weakness of the right leg. Shortly after admission to the hospital she complained of chest pain as well as abdominal pain and weakness of both legs. She had been admitted to the hospital with the tentative diagnosis of poliomyelitis. The patient died suddenly within a few hours and no further history or physical examination was obtained.

Admission urinalysis revealed two plus albumin with many epithelial cells. White count was 13,050 and the red count was 3,760,000 with 70% hemoglobin.

Post mortem examination revealed a dissecting

aneurysm beginning at the proximal third of the descending aorta just below the reflexion of the pericardium. The blood had dissected a well marked layer between the muscularis and the adventitia. In the chest posteriorly the aneurysm had ruptured into the mediastinum. The dissection continued down the aorta to include the common iliac artery. There was a massive hematoma of about 500 cc. posterior to the heart and aorta and to the left of the vertebral column. The rest of the post mortem examination revealed nothing of significance. Examination of the central nervous system was not done.

Comment: This patient presented the chief complaint of abdominal pain with weakness of the right leg and was sent into the hospital by her local physician with a tentative diagnosis of acute poliomyelitis.

SUMMARY

Five cases of dissecting aneurysms of the aorta have been presented. Each of these patients had neurological changes produced by ischemia of some part of the nervous system as a result of an aortic dissection, emphasizing the dominance of neuropathology as the basis for their symptoms. In patients who have sudden severe and unexplained chest, abdominal, back, or leg pain with bizarre radiations and associated with neurological signs and symptoms, a dissecting aortic aneurysm should be considered. It is essential that we develop a clinical consciousness of this condition, with early diagnosis, since many of these lesions are amenable to treatment.

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Reaction Causes Most Pain

Some individuals receive extensive wounds and feel little pain, while others with only small wounds suffers great pain. It all depends on the situation and what the wound means to the person. Dr. Henry K. Beecher of Harvard Medical School reported in the August 25th *Journal of the American Medical Association* on two surveys: one among 150 men wounded at the Anzio beachhead during World War II and the other among 150 civilians undergoing various types of surgery.

He found that the men wounded in the war suffered far less pain, although most of their wounds were much more serious than the "surgical wounds" of the civilians. He attributed their lessened pain to the fact that the soldiers viewed their wounds as "good fortune" since they would be delivered from an area of "desperate anxiety." In contrast, the civilian viewed their surgical operations as "depressing, calamitous events." Among the war wounded only 32 per cent wanted a pain reliever a few hours after the injury, while 83 per cent of the surgical patients did. If the extent of tissue

damage had any fixed relation to the pain experienced, it would be expected that those with war wounds would have more pain, both in frequency and in degree, than those who had surgery.

Instead, wound pain of sufficient degree to require narcotics is far more common in a situation such as civilian surgery where the anxiety level is high, than it is in a situation where desperate anxiety (fear of sudden death on the battlefield) has been replaced by a far lesser worry (a wound). Thus a wound is not alone the cause of pain; the significance of the wound may be the paramount factor in determining the amount of pain.

Dr. Beecher said this indicates that not all injured persons need to be given pain-killing drugs or medicine. A considerable number of them may be helped simply by "alterations of mood", such as relief of anxiety. The findings also suggest that experiments in testing pain-killing drugs may be limited in usefulness, since experimental pain carries with it little anxiety.

Psycho-Physiological Gastrointestinal Reactions

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BEFORE DISCUSSING the psychophysiological gastrointestinal conditions a review of the innervation of the gastrointestinal tract is indicated.

Esophagus and stomach are supplied by the right and left vagus nerves; liver by the left vagus. Small intestines are innervated by the vagi and the sympathetic nerves. The large intestines receive their nerve supply from the sympathetic; occasionally the cecum may receive a branch from the vagus nerve. The pancreas is supplied by the sympathetic nerves. The descending colon and rectum are supplied by the pelvic plexuses. The abdominal viscera receive both sensory and motor branches from the thoracolumbar division of the sympathetic and the sacral division of the parasympathetic, also called the autonomic nervous system. The right sympathetic trunk is partially covered by the inferior vena cava and the left is covered by the aorta.

There are a number of sympathetic ganglia and plexuses. Some of these plexuses are paired, namely; phrenic, suprarenal and the renal; spermatic in the male, ovarian in the female. Unpaired plexuses are the aortic, hepatic, splenic, superior gastric (coronary), inferior gastric, superior mesenteric and inferior mesenteric. The hypogastric plexus is also called the pelvic plexus, which is divided into right and left.

There are several sympathetic ganglia in the abdominal cavity, largest of these are the celiacs. There are 3 to 8 pairs of lumbar ganglia, usually 4 pairs. There are 4 small sacral ganglia.

The abdomen is usually known as the sounding board of the emotions. The gastrointestinal tract with its rich supply of autonomic fibers is the most frequent focus of psychosomatic symptoms. The most prevalent symptoms are: anorexia nervosa, nervous indigestion, diarrhea, so called "butterflies moving", vomiting, belching, epigastric pain, flatulence from fright or hurt and constipation. The esophagus and the colon seem to be more vulnerable to the emotions. These segments are proximal to branches of the central division of the nervous system. We must remember that gastro-intestinal complaints are encountered in many neurotic reactions, in the depressive phase of manic depressive reaction and schizophrenia psychosis. Nausea and vomiting may represent an attempt at expulsion of a noxious situation. Many

of us have experienced seeing sudden cessation of nausea and vomiting once the patient is removed from the noxious environment or situation. Unconscious mental forces can cause vomiting—the patient cannot "stomach" the situation. It is a physical manifestation of an escape mechanism. In vomiting of bile stained fluid we should inquire if the patient suffers from migraine headaches.

Cardiospasm is considered to be more than a neurosis. The nerve plexus at the cardia may be diseased. It is not purely psychic—Porter Vinson does not think it is a neurosis. Dilatations seem to relieve the symptoms. Roentgenoscopic study is indicated.

Anorexia nervosa represents punishment of others or self. Attempt to gain attention may be a motive. On the other hand, deep seated death wishes may lead to the anorexia. Figuratively, the stomach being moronic cannot distinguish between hunger for food and hunger for affection. Restraint of emotions, rather than expression, seems to contribute to the formation of ulcers. Peptic ulcers follow seasonal pattern—they are largely diseases of spring and autumn. Constant bombardment of the nervous system by the emotions may increase the reaction of hyperacidity in ulcer formation. The ulcer patient is usually rigid, over-conscientious and aims at perfection.

Colon complaints are often of long duration with much detail. Pains are related to emotional stress; pain tends to shift; radiation is atypical. Functional symptoms are usually influenced by worries; business reverses, family quarrels, sudden shocking news, the illness and death of a close relative or friend who had suffered from cancer or another serious condition, may by suggestion cause suffering in a predisposed individual. They tend to identify with the illness and thereby develop physical manifestations of an underlying neurosis.

In "mucous colitis" there is no colitis or inflammation of the colon. The colon is actually sensitive to emotions and nervous tension. The nervous patient will have colic with urgent desire to go to the toilet every half-hour or so, no feces will pass, actually gas will be passed with brown slime or foam and at times some fluid will pass. A large psychic strain may cause the syndrome while going out to

dinner with old friends. Subconscious tension will produce the distress.

Psychological factors are not directly responsible for ulcerative colitis. Psychic factors cannot produce actual ulcers of the "bowel". A personality study is helpful towards treatment, usually an emotional conflict exists. When it is solved bombardment is minimized. The intestinal mobility returns to normal. The colon is removed from the irritating factor. It can then take care of its bacterial invaders and the disease may promptly disappear.

TREATMENT

1. Before any treatment it is essential to get a thorough history by systems, family history, past history, with special emphasis on possible visits to other doctors, childhood history and a personal history.

2. A complete physical and neurological examination.

3. Laboratory procedures, chemical and x-rays.

4. Allergic tests are usually indicated.

5. Once organic disease is ruled out it is then

imperative to approach the case with psychiatric interviews; psychological studies when indicated.

6. In spite of negative physical findings, special diets are usually indicated.

7. Chemotherapy, sedatives, antispasmodics, tranquilizing drugs.

8. Psychotherapy sessions.

9. In severe cases, shock-therapy may be indicated before the patient will show improvement.

10. Telling the patient that it is in the mind and that they will have to get over it themselves leaves a bad taste. These people need support, and welcome reassurance with the feeling that we are interested.

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Auto Passengers Protect Yourselves

It's better to lose a friend than to lose your life, a health and safety consultant, Dr. Carl J. Potthoff, said in his safety and first aid column in *Today's Health*, published by the American Medical Association. People should not take risks with an irresponsible automobile driver, even if it means offending him. Although statistics from nationwide experience are not available, it is possible that half or more of nonpedestrian traffic accidents that result in death or permanent injury happen to people whose only error lay in accompanying others who did the driving. Some of these drivers pay little attention to their responsibility for passengers. Sometimes we do not like to reject rides with such drivers; we do not like to remonstrate with the speeder; we do not like to request that a reckless driver stop so that we can leave the car. We hesitate to offend him; but he is entirely willing to jeopardize our life.

"Consider the passengers who are driving to or from a fishing or vacation resort, the teen-age girl who is bound to or from a dance, the group that is going to or from a sports event, a convention, a gala meeting. If you study newspaper accident accounts, you will quickly note that it is the passengers who often pay the price for the careless driving of others."

Dr. Potthoff said parents and safety educators should teach children how to deal with irresponsible drivers, how to protect themselves when there are "social pressures" toward accepting dangers.

If properly prepared, they will have through life a "base line" for dealing with these situations. "The base line is that self-protection is more important than the esteem of the irresponsible."

When other approaches fail, he concluded, "forthright action for self-protection should be taken."

Common Skin Problems of the Face

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REGARDLESS OF the type of medical practice in which the physician engages, whether general or highly specialized, his patient with an eruption of the face will turn to him and ask—"Doc, what is this on my face and what can I do about it"?

The answers to these questions are important because eruptions of the face cause a great deal of embarrassment, discomfort, psychological trauma, and many of them are disabling and of serious consequence. Many of these eruptions interfere with a normal social adjustment both in the teen age group and in adults. Because the face is so important in the impression that one makes on other people, a facial eruption should not be regarded lightly. When you have helped such a person you will have a most grateful patient and will be inwardly rewarded yourself. With this view point in mind I will cover some of the common diseases, their diagnostic points and therapeutic measures.

CONTACT DERMATITIS

Contact dermatitis is an acute or chronic inflammation of the skin caused by sensitization to external agents. These may be chemicals, dyes, plants, cosmetics, drugs, and any of the myriads of substances that the skin may be exposed to.

The eruptions vary from an acute edematous bul-

trations of the substances suspected, is a valuable confirmatory aid.

In Figure 1 we see an acute vesicular eruption due to poison ivy. This could be caused by chemicals, sprays, medicaments, etc., as well. In Figure 2 we see a chronic type of eczema due to contact with nail polish. The nail polish does not "break out" the nail but the sensitive eye tissue does react when the woman sleeps with her hands placed under the side of the face or eye region.



Fig. 2.—Contact dermatitis due to nail polish.

Treatment: Identification of the causative agent is the most important factor since there will be recurrence if it is not removed, and patch testing is therefore necessary. In principle the patch test is a clinical re-exposure as a small amount of the suspected material is placed on the skin and securely bandaged for forty-eight hours. If the patient is allergic to the material in question there will be a reaction. Compresses and bland lotions will rapidly relieve discomfort and disappearance of the eruption will follow if the offending agent is removed. One of the great mistakes is over treatment resulting in a super-imposed contact dermatitis. The use of antihistamine creams and local anesthetic creams which are potent sensitizers is to be avoided. ACTH and Cortisone are indicated in severe reactions for temporary use while the offending agents are discovered and removed.

ACNE VULGARIS

Acne vulgaris is a chronic inflammatory disease involving the pilo-sebaceous structures. It consists of plugging of the follicular openings leading to



Fig. 1.—Contact dermatitis due to poison ivy.

lous reaction to chronic scaly, lichenified, eczemas. Detailed history taking and a high index of suspicion is most important in making the diagnosis. The use of patch tests, using appropriate concen-

black-heads (comedones), papules, pustules, and nodules associated with marked oiliness of the skin. In Figure 3 we see these various manifestations on the forehead of the patient emphasizing the comedones and nodular-like lesions. These classic lesions may progress to cystic formation and furuncle-like lesions. Scarring of the face may be the end result of healing.



Fig. 3.—Acne vulgaris showing comedones, papules, and cystic formation.

Disturbance of the hormonal balance, which is common between the ages of twelve and thirty, is thought to be the causative factor in the dysfunction of the sebaceous structures, which manifests itself in acne.

Treatment: Is directed towards peeling of the skin to allow proper drainage of the blocked follicular openings. Therefore, keratolytics such as resorcin and sulfur are used in the form of lotions and creams. Dietary restriction of chocolates and fats is beneficial. Vitamin A internally in doses of 50,000 to 100,000 units daily for several months is somewhat helpful in cutting down blackhead formation. The broad spectrum antibiotics internally are helpful for pustular acne. In the severe and stubborn cases fractionated x-ray therapy offers the most reliable means of combating acne. The pitted scarring can now be treated with the use of the steel wire brush¹ which in my opinion has given good results and is a relatively simple office procedure.

Acne produces feelings of inferiority, psychologic and emotional damage at an important period of life and the general physician should make every effort to help these patients.

LUPUS ERYTHEMATOSUS

Lupus erythematosus is an acute and chronic disease of the skin characterized by the presence of red, scaly patches which eventually cause superficial atrophy and scar formation. The acute form is a systemic disease which has been fatal until

the very recent years. The chronic forms of the disease may be long lasting and do not show the systemic symptoms except in rare cases which may be converted to the acute form.

The etiology is unknown. However sensitivity to sunlight is important. Dissemination of the disease may result from exposure to the sun or ultra-violet light.



Fig. 4. Chronic discoid lupus erythematosus.

In Figure 4 we note the "butterfly" distribution of chronic lupus erythematosus showing atrophy and scarring. This type may persist for years. In contrast to the acute type, the "L.E." cell test is negative.

Treatment: Avoidance of the sun and use of sun-protective creams are of value in the chronic type. An old form of therapy has been the use of bismuth and gold and many good results have followed its use. In the past few years the use of Chloroquin and Atabrine internally has given excellent results. Cortisone and ACTH are not indicated in the chronic type of lupus erythematosus.

In the treatment of the acute form the use of cortisone and ACTH has prolonged life for many of these patients. However a fatal result is still very likely.

Because of the occurrence of dissemination on exposure to sun, sunlamps, and sources of ultra-violet the physician can perform the greatest service by an early diagnosis and warning to the patient.

SKIN CANCER

About 90% of skin cancers occur on the face and neck. Exposure to sun light is a pre-disposing and causative factor in the development of skin cancer. It is thus more common in people who work out-of-doors, such as a farmer or laborer. Cancer of the skin may also develop from pre-cancerous lesions such as keratoses, leukoplakias, chronic ulcers, burns, and nevi.

In Figure 5 we see a characteristic basal cell epi-

thelioma, the so-called rodent ulcer. This is a slow growing locally ulcerating lesion. It is locally malignant and does not metastasize unless there is a transition to the squamous cell type. Treatment depends on the size and site. Small lesions are cured by thorough electro-desiccation. Excision can also be done. X-ray radiation is also very helpful in some larger lesions and in areas where surgery is difficult.

In Figure 6 we see a squamous cell epithelioma. X-ray therapy in this case would be a very good method of treatment being easy to administer, while surgery in this area would be a difficult procedure, probably leading to contraction of tissue in the site. The search for metastases should always be done.



Fig. 5.—Basal cell epithelioma—"Rodent Cell Ulcer".



Fig. 6.—Rapidly growing squamous cell epithelioma.

The cure rate of cancer of the skin should ap-

proach 100% and this is dependent on early correct diagnosis and thorough treatment. Attention to the precancerous lesions will also help in cutting down the rate and extent of skin cancer.

INFECTIONS

Primary infection of the skin by bacteria may result in impetigo, folliculitis, furuncles, erysipelas, cellulitis. In addition many other skin diseases such as contact dermatitis, atopic dermatitis, fungous infections etc., not infrequently become secondarily infected and it is imperative to treat the superimposed infection first before any attempt is made to manage the under-lying primary disease.

Treatment: In the superficial pyoderms topical treatment is usually curative. The agents of choice should be non-sensitizing antibiotics such as bacitracin, neomycin, and erythromycin. The use of penicillin, sulfa, and streptomycin locally are to be condemned because of their high sensitizing rate. In the generalized and deeper infections systemic administration of antibiotics is indicated.

GRANULOMAS

A clue for the discovery of many chronic granulomas can often be found by examination of the face. A disease such as sarcoid commonly shows pearly nodular lesions around the eyes, lids, nose, and lips. Tuberculosis of the skin gives rise to lupus vulgaris. Lesions of the face are very common in syphilis, the moist raised reddish infiltrations around the mouth and lips being very characteristic. Biopsies in the granulomas are usually necessary in making the specific diagnosis.

SUMMARY

A brief review of some common skin diseases that are frequently seen on the face has been presented with emphasis on their diagnostic features and treatment.

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Pseudo-Mental Deficiency, A Psychiatric Syndrome

As psychiatrists and psychologists have learned more about human behavior and its dynamics, they have directed their therapeutic efforts based on such knowledge toward the cure of the mentally ill and the prevention of more serious conditions in those suffering with less severe behavioral disorders. For the most part psychiatric treatment has been reserved for those who have demonstrated, or are known to possess, the capacity for functioning on at least an average intellectual level. Although interest in the intellectually sub-normal individual has been increasing, help for him has been channeled into improved schools and teaching methods. The emphasis has continued to be on enabling the mental defective to make the best possible use of a below average capacity.

Kanner¹¹ has lamented the grouping together of all mental defectives, pointing out that progress in the treatment of psychoses began when syndromes were isolated, described in more detail, and studied separately. Certain syndromes, e.g. cretinism, mongolism, and hydrocephalus, have already been separated from the broader category of mental deficiency. Although the number of individuals falling within such categories is relatively small, the designation of such entities makes research directed toward further understanding and perhaps ultimate remedial methods possible.

The conditions which have been most carefully isolated and experienced upon are those which have been found to have a physiological basis but a psychological etiology has been postulated for some cases functioning on a defective level. Individuals whose low intellectual functioning level has been considered to be the result of early deprivation have been called pseudo-mental defectives. Unfortunately cases simulating mental deficiency for other reasons have also been referred to by the same term. Pseudo-mental deficiency as used in psychological literature over the past 10 years, is almost as broad as the term

mental deficiency itself. Some authors have used it to apply to those cases where inadequate testing or lack of good rapport led to a "wrong" diagnosis¹⁵; some to include persons handicapped by hearing loss⁹; some to include cases of delayed maturation^{1,5,7}; and others to include patients with organic brain damage⁶.

The broad use of the term makes meaningful communication difficult and a more precise definition is necessary. Since the purpose of this paper is to consider a group of mental defectives who might be likely to profit by psychotherapy, those thought to have incurred brain damage or who are lacking in sensory acuity in some important areas should not be included, at least for the present. The pseudo-mental defective referred to in this paper is an individual who appears, after careful interview and extensive psychological testing, to have a higher capacity than the psychometric or his general social behavior indicates, and who because of lack of stimulation in early childhood and deprivation of affection and acceptance by parental figures has failed to progress in the intellectual area.*

The general trend, as more about behavior is learned, is to concentrate on environment rather than on heredity. This approach ties in well with the idea of mental deficiency based on emotional deprivation. The fact that twins separated in infancy have shown a greater discrepancy in I.Q.'s than have those raised together gives some evidence for the idea that environment has a recognizable influence on intellectual functioning.

Adult schizophrenics, when measured by psychometrics, often score within the defective range. We do not make the mistake of taking an I.Q. at its face value in such cases because we usually have a history showing the individual in question once performed far above such a level. The child emotionally disturbed for most of his life has never been able to demonstrate a greater competence, but this fact does not prove he does not have average capacity.

*The writer is indebted to John N. Buck, previously at the Lynchburg Training School and Hospital, Colony, Virginia, for the basic idea of the syndrome described here. The postulates were presented not only in formal (unpublished) lectures, but developed and clarified through personal communication.

Original paper by HANNAH S. DAVIS, *Head of Psychology Department, Lynchburg Training School and Hospital, Colony, Virginia, which was submitted as a thesis for her Ph.D. Degree.*

The autistic or schizophrenic child also functions on a defective level according to psychometric devices, if one can get his attention long enough to attempt the test items. Many such children have been diagnosed as feeble-minded in spite of the fact that Kanner has described certain characteristics which make it easier to recognize such a child than to differentiate between an endogenous and a pseudo-mental defective. Someday we may find the pseudo-mental defective child can be placed on a continuum between "normal" and schizophrenic.

We know from experience that children use failure in academic subjects as a defense against a hostile world. Child guidance clinics see many who in spite of demonstrable intellectual capacity are failing in reading and other academic subjects. Those falling into the classification of pseudo-mental deficiency may merely go further and fail to pick up substantial information in any academic area.

Evidence of difference in performance due to environmental influence in twins, and the defenses of disturbed children and adults in the intellectual area seem quite pertinent and applicable to consideration of an emotional basis for intellectually defective functioning. Further evidence from historical accounts of feral children should also be reviewed. Although many have considered these children to be idiots (or only slightly higher) further examination makes such an idea untenable. Zingg¹⁶ mentioned that it seemed highly unlikely that only idiots should be cared for by animals when the rather high number of cases reported was considered. If one compares the reactions of idiots in an institution with the adaptive behavior of the children brought up with animals, one cannot help but feel that in order to stay alive these feral children must have had a large supply of the ability to adapt, a characteristic we associate with human intelligence. The fact that these children when rescued did not learn human behavior readily does not contradict this opinion. We believe that infant babbling includes all sounds used by the peoples of the world. Each baby who has the usual stimulation learns the sounds of the language of its parental figures. Yet as adults most of us have difficulty with certain sounds in languages of even similar languages of western cultures. One needs to carry this idea only a little further to arrive at the theory that certain potentialities common to babies may atrophy through disuse. The feral children had wolf or leopard vocalizations reinforced. Once the early language acquisition stage had passed, it may have been too late to develop an adult vocabulary. Perhaps the ability to identify completely with

a loved parental figure, considered a necessary prerequisite to motivated learning in children, also disappears after a certain age. In this connection it is interesting to note that Kaspar Hauser did develop a vocabulary comparable to that of most adults. Although he did not come in contact with humans, he did not come in contact with animals, and it is possible that early association with humans (since we don't know at what age he was isolated) carried over.

The most concrete evidence for the existence of a syndrome of pseudo-mental deficiency, however, comes from cases on file originally diagnosed as "feeble-minded" who later manifested adequate intellectual functioning either on intelligence tests, in community activities, or on a job. Since basic mental deficiency is by definition not curable, the only alternative when a later I.Q. falls within normal limits is that the child was not originally a true mental defective. Many such cases have been reported from time to time and more can, no doubt, be found in the files of any institution for mental defectives. Two cases from the records of Lynchburg Training School and Hospital will be sufficient as illustrations.

Case 1. Jimmy came to the Training School when he was three years old. Infancy had been a period of extreme deprivation. His mother, about whom the social worker could obtain little information except that she was described as of "low moral status", gave birth to the illegitimate baby with no one in attendance and concealed his existence until he was discovered by the Department of Public Welfare at age five months. During this time, Jimmy was apparently left in a room alone while his mother was out. Although the foster mother with whom he was placed was described as "very understanding", Jimmy made little progress. His cruelty to animals and other children plus his failure to learn made commitment to an institution seem advisable.

On admission speech consisted of only one or two words and unintelligible sounds, but the latter were often accompanied by comprehensible gestures. Although on the Vineland Social Maturity Scale, the child's social age was one year, eight months, with a resultant social quotient of 50, and a Cattell Infant Intelligence Scale yielded an I.Q. of only 58, the examiner postulated a higher capacity on the basis of the wide scatter, with some success at his chronological age level, and the fact that some of his failures were due to unintelligible speech.

Physically Jimmy was an extremely attractive little blond with an expression that can best be described as combining blandness with a perpetual slight frown. His attractive appearance made him more

than usually appealing to the attendant and nursing staff, who gave him more than customary attention and affection. One nurse, who refused to believe Jimmy was mentally defective, began taking him home with her on week-ends, buying him clothes and toys, and in general attempting to supply him with normal affection. He soon began to talk and showed other signs of improved functioning level.

Because of the improved speech and behavior, foster home placement was again attempted. Three months later (eight months after the test described above) Jimmy was given a Stanford-Binet by the same examiner. This time his I.Q. was 70. The psychologist mentioned that the child was more distractible and more determined to use the material as he wished, and again postulated that his true capacity had not been measured.

Although the foster parents considered permanent adoption, they were unable to carry out such a plan. The Department of Public Welfare in his home county on being informed of his "improvement" found a prospective home there. A final psychometric six months later (Merrill-Palmer) gave him an I.Q. of 86. Soon after, he was placed in the new home, in which as far as is known he has continued to adjust.

Case 2. Ralph was admitted to the Training School in 1941 at the age of nine. His mental age had been estimated a year before as five years on the basis of a Stanford-Binet (1916). Although social history data were meagre, the fact that he walked and talked when he was 14 months old suggests that early development was within normal limits. His mother was an alcoholic and described as "disreputable". Because of the mother's characteristics Ralph was cared for in the Richmond City Home for two years prior to institutionalization. Although he had been attending school only two years, he was in a special class.

Psychometric techniques on admission and again in 1945 confirmed that he was functioning on a moron level. A discrepancy between third grade achievement in arithmetic and a Stanford-Binet mental age of six and a half years suggests factors atypical for a basic defective. All I.Q.'s on a Wechsler-Bellevue scale administered in 1949 were within borderline range and quantitative scores of the H-T-P reached the average level.

Almost from the time of his arrival Ralph was employed in a store owned by an employee just off the institution's grounds. He attended school, seemed reasonably happy, and since he caused little trouble for anyone received only minimum attention from

the professional staff. A few months ago another patient, whom the social worker was attempting to enroll in a state school for vocational rehabilitation, was hesitant in leaving alone and suggested Ralph go with him. A re-examination in May, 1954, with such a plan in view gave the following Wechsler-Bellevue Scale results: Verbal I.Q. 77; performance I.Q. 99; full scale I.Q. 86.

The above two cases experienced the deprived background in infancy or early childhood which the writer has postulated as a contributing cause to defective functioning. Since an individual cannot do better than he is capable of, the higher scores must be taken as evidence of at least that capacity. Since basic capacity does not increase, we must then assume that what the individual does later is an indication of the potential ability previously present but not realized.

The above cases did not have formal therapy. The attention, compassion, and affection shown Jimmy by the institution's personnel, particularly the nurse mentioned, who for a brief time became a mother figure, seemed to be all that was necessary to start this child on the road to recovery. The rather rapid increase in functioning level may have been due in part to the early age at which he came to the attention of people who took a helpful interest in him. Ralph's improvement also can be postulated as due to the interest of the store's customers, many of whom were on the Training School staff. It also seems probable that the concrete situation of learning prices, making change, and satisfying the customers' needs enabled him to gain knowledge of number concepts and the meaning of the words on labels in a situation not only more meaningful to him but under conditions of less pressure than those of the classroom.

More formal treatment by other investigators gives added evidence for consideration. Axline² made a study of three groups of six and seven year old children who had been seen in play therapy sessions. One group, who were functioning on an average or higher level, need not be considered here. The other two groups were composed of children whose I.Q.'s ranged from 65 to 74. In her report Axline gives a summary of the interviews with the five who made no improvement in measured intelligence and with the five who did. Post-therapy I.Q.'s of the latter group ranged from 85 to 100, with the smallest gains being 14 I.Q. points, the largest 24. In addition to emotional conflicts two of these five had defective vision, one poor auditory acuity, and one was spastic. Although these children would not technically be in-

cluded in the syndrome described in this paper, the fact that they improved with therapy suggests even greater promise for those who do not have an added handicap.

At least two of the children described by Bettelheim⁴ had been thought to be feeble-minded before enrollment in the school, and one of them had been in an institution for mental defectives. After the reassurance and acceptance which the school offered had begun to free the children from their difficulties, both began to absorb academic knowledge easily.

Evidence for a theory of pseudo-mental deficiency based on an etiology of a depriving and rejecting environment seems sufficient for proceeding to more formal experimentation. Selecting cases thought to conform to such a group and allowing them to live in an atmosphere like that of the school described by Bettelheim⁴ would be the most convincing test of such a hypothesis. A less costly and more feasible method would be to select groups thought to have a higher capacity, see them regularly in therapeutic sessions, and re-examine them periodically.

Studies such as those suggested above would have another purpose. Cases at first would have to be selected on a few vague generalizations and clinical hunches. Among these might be projective protocols thought to show higher functioning than is usually found in defectives⁸; erratic scatter among subtests of intelligence tests; evidence from the social history of performances usually considered above the level of a defective; and a functioning level revealed during the interview above that tapped by formal tests. If post-therapy examinations revealed a significant increase in intellectual measures the early test results should be reviewed and analyzed for more objective predictive measures. An arm-chair postulation which could also thus be checked is that age would play a significant role. It seems quite plausible that the longer an individual had functioned on a defective level, the more difficult it would be for him to realize a higher capacity even if it were theoretically available.

Until further evidence is compiled, the theory presented here can still be useful. Giving those we suspect to have higher capacity the attention and

affection of which they have been deprived, providing them with adult figures with whom they may be able to identify, and making therapy available whenever feasible are unlikely to do these individuals any harm and may result not only in their functioning on a higher level, but also in a more comfortable acceptance of themselves and those with whom they live.

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Meat and Poultry Inspection

During the 1956 session of the General Assembly, the 1954 Meat Inspection Act was amended to include poultry and rabbits. This service is now available to interested operators in the industry.

Heretofore, most poultry and rabbits with their products were not inspected and the public as well as people in the industry became interested in a wholesome, protected supply. The Federal Department of Agriculture operates an inspection service which is not compulsory and only a small percentage of plants employ this service.

The major concern of a well managed inspection service revolves around hazards to the public health from diseases transmissible from poultry and rabbits to man as well as contamination of products through unsanitary operation and handling.

Man shares susceptibility with poultry to many bacterial, viral, fungal and parasitic diseases. Psittacosis, erysipelas, tuberculosis and toxoplasmosis are only a few. It is interesting to note that during 1954, out of 257 plants in the United States inspected by the Federal Service, 1,923,948 poultry carcasses were condemned as unfit for human consumption. Of this number over 32% were condemned for septicemia and toxemia, 30% for inflammatory processes, 9.25% for tuberculosis and 8.05% for cancer (Leucosis)*. This picture remains more or less constant in their experience.

Of food borne disease outbreaks in humans reported to the U. S. Public Health Service during 1953, 4,403 or 44.4% were associated with poultry or poultry dishes.** These figures do not include milk or milk products as vehicles. According to the Federal Food and Drug Administration in 1951, poultry ranked third in the number of filth and decomposition charges brought by that organization. It can be seen by these facts that there is reason for concern.

Recently, bills have been introduced in the Congress that would provide for compulsory ante-mortem

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State Health Commissioner of Virginia

tem and post-mortem inspection of all poultry going in interstate commerce. Such legislation would be of help to the situation but much of the problem would remain on many local levels. The legislation passed by the General Assembly is designed to fill this need. It is now possible for Virginia localities to enact an ordinance requiring the inspection of all poultry and rabbits sold for human consumption within their jurisdiction. A simple Act designating the Inspection Service of the State Department of Health, or one of comparable standards such as the Federal Service, as the inspection agency would suffice.

The State Health Department's Poultry and Rabbit Inspection Service is designed to operate under regulations as recommended by the U. S. Public Health Service. These regulations provide for a complete ante-mortem—post-mortem examination of all birds and rabbits presented for slaughter as well as specification for facilities, sanitation and handling methods in the plant. An inspector will be present at all times the plant is in operation and products passed will bear the official legend if passed for public consumption. The service is under the supervision of qualified veterinarians. A charge to cover the cost of conducting the inspection is made against the plant operator.

The State Health Department stands ready to assist any community in the State that wishes to avail itself of this service.

MONTHLY REPORT OF BUREAU OF
COMMUNICABLE DISEASE CONTROL

	Aug. 1956	Aug. 1955	Jan.- Aug. 1956	Jan.- Aug. 1955
Brucellosis	3	2	17	21
Diphtheria	2	0	23	15
Hepatitis (Infectious)	28	71	338	876
Measles	147	136	23443	3692
Meningococcal Infections	0	4	59	71
Meningitis (Other)	20	--	90	--
Poliomyelitis	51	104	92	206
Rabies in Animals	16	18	228	266
Rocky Mt. Spotted Fever	16	6	37	37
Streptococcal Infections	255	355	4170	5153
Tularemia	1	1	17	10
Typhoid Fever	6	5	33	29

*From Annual summaries prepared by Poultry Division, Agricultural Marketing Service, U. S. Department of Agriculture.
**Atkinson, Joe W., "Development of New Public Health Service Poultry Ordinance". Table I, 1955.

The Medical Society of Virginia

REPORTS FOR 1956 ANNUAL MEETING

Executive Secretary-Treasurer

Unfolded on these pages is a true story—a story of physicians at work—a story of a profession which has awakened to its responsibilities and at the same time sensed the dangers and implications of a constantly changing political scene. Once again, The Medical Society of Virginia has been fortunate to have had steady hands at its helm and great credit must go to the President, Council, and House of Delegates for an outstanding job of keeping the Society on an even keel.

The mid-winter meeting of Council was held on February 19, and complete minutes may be found in the April issue of the Virginia Medical Monthly.

A special meeting of Council took place on August 23 and complete minutes are published in this issue.

COMMITTEES: Forty-one committees (twelve standing committees and twenty-nine special committees) were quite busy during the year. Twenty committee meetings were held at Society Headquarters, representing a new high. This is most encouraging and is indicative of a better working relationship between the State Office and the various committees.

COMPONENT SOCIETIES: Visits were made to twenty-one of the forty-six component societies. This represents a marked increase over the number of visits in previous years. Many of the trips, sixteen to be exact, were in connection with the Professional Liability Insurance Program.

MEMBERSHIP: Last year's report sounded a triumphant note over the fact that the figure of twenty-five hundred had been exceeded. Now, one year later, it is equally gratifying to report that The Medical Society of Virginia has over twenty-six hundred members, and from all indications, the end is not yet in sight. The membership story follows in detail:

Members reported August 31, 1955	2558
New Members	153
Reinstated	5
	158
Deaths	35
Resignations	25
Dropped	26
	86
Increase	72
Total membership as of August 31, 1956	2630

PROFESSIONAL LIABILITY INSURANCE: The Professional Liability Insurance Program was officially launched during January, and the response thus far has been encouraging to the Committee. The membership is urged to read the Committee report published in this issue.

A number of questions concerning the program continue to be received in the State Office. The thought occurs that your component society may be interested in arranging a question-and-answer session for one of its future programs. Sixteen such sessions were held during the year and proved unusually successful. Just have your secretary or program chairman contact the State Office.

AMERICAN MEDICAL ASSOCIATION MEMBERSHIP: It is encouraging to report that the Society is now within reaching distance of its goal of three delegates to the American Medical Association. As this report is written, the Society has 1968 members on the AMA rolls. This represents a sizable increase over the 1897 recorded last year, and Mr. Smith is to be commended for his efforts in this regard.

MEETINGS AND CONVENTIONS: Both sessions of the AMA were attended by the Executive Secretary. He also attended the AMA Public Relations Institute, the Medical Exhibitors' Conference, the regional meeting on Medical Care for Dependents of Service Personnel, the AMA regional legislative conference, the AMA legal conference, the special AMA meeting on Social Security Amendments, and the regional meeting with representatives of the UMWA.

The State Office was also represented at a national Blue Cross-Blue Shield conference, three meetings of state associations, and ten meetings of civic associations.

VIRGINIA MEDICAL MONTHLY: It is quite likely that you have noticed the "new look" of the Virginia Medical Monthly. It is also likely that you will agree that the change is for the better.

Among the changes have been a new cover design, new masthead, new headlines for original articles, new index page, new filler arrangement, more space between columns for readability, new headlines for departments, "Current Currents" insert, etc.

Miss Watkins, Managing Editor, attended the state Medical Journal Conference in Chicago and has adopted several conference suggestions. Under her able management the Virginia Medical Monthly is rated near the top.

The editors are making every effort to keep pace with present day trends in printing.

SELECTIVE SERVICE: It has become evident that as long as the Doctor Draft Law remains in effect there will be no let-up in the work of the State Advisory Committee to Selective Service. While few problems remain with the Priority I and II groups, the Committee has been confronted with an unusual number of difficult situations in connection with resident training programs.

This Committee has worked unceasingly since its appointment in 1950 by the President of the United States. During this time, over seven hundred files have been processed. The fact that scarcely a voice has been raised in protest bears testimony that its decisions have been reached conscientiously.

Too few physicians are aware of the amazingly effective work the Advisory Committee is performing without fanfare. Some idea of the time involved can be gained from the thirty-five man hours per month required of staff personnel in connection with committee activities.

WOMAN'S AUXILIARY: Once again it was a privilege to work with the Woman's Auxiliary and to become better acquainted with its activities. The Auxiliary is growing, keeping pace with the Society, and its future has never been so bright. The Society would do well to rely more strongly upon this "strong right arm" during these troublous times.

VIRGINIA COUNCIL ON HEALTH AND MEDICAL CARE: During the past year, forty-four requests for placement assistance were received from out-of-state physicians. The requests were referred to the Virginia Council on Health and Medical Care and Mr. Fisher reports that four of the physicians have located.

A conference on the problems of the aging and chronically ill will be held at Richmond's Hotel John Marshall on November 8. It is jointly sponsored by the Council and The Medical Society of Virginia.

PERSONNEL: There have been no changes in State Office personnel during the year, the number remaining at four. Part-time assistance continues to be employed during peak-load periods and this system has lived up to all expectations. It has resulted in a considerable savings to the Society without loss of efficiency.

The Medical Society of Virginia has enjoyed a good year. The staff is particularly pleased by the mounting number of services performed for individual members, and hopes that this is only the beginning. This is your Society—serve it and let it serve you.

ROBERT I. HOWARD

Executive Secretary-Treasurer

Delegates to the American Medical Association

Elections:

David B. Allman, Atlantic City, President-Elect.

F. S. Crockett, Lafayette, Ind., Vice-President.

Julian Price, Florence, S. C., re-elected to Board of Trustees.

Hugh Hussey, Washington, D. C., elected as Trustee.

The House of Delegates selected Dr. Walter A. Biering of Des Moines, Iowa, as recipient of the 1956 Distinguished Service Award.

Registration for the meeting was 22,394, including 9,793 practicing physicians and 12,601 residents, internes, medical students and guests.

Hospital Accreditation

The House of Delegates approved the report of the committee set up by House action in June, 1955.

This committee came up with the following conclusions which are quoted in toto on account of their importance.

"1. Accreditation of hospitals should be continued.

"2. The Joint Commission should maintain its present organizational representation.

"3. The Board of Trustees of the American Medical Association should report annually to the House of Delegates on the activities of the Joint Commission.

"4. Physicians should be on the administrative bodies of hospitals.

"5. General practice sections in hospitals should be encouraged.

"6. Staff meetings required by the Joint Commission are acceptable, but attendance requirements should be set up locally and not by the Commission.

"7. The Joint Commission should not concern itself with the number of hospital staffs to which a physician may belong.

"8. The Joint Commission is not and should not be punitive.

"9. The Joint Commission should publicize the method of appeal to hospitals that fail to receive accreditation.

"10. Reports on surveys should be sent to both administrator and chief of staff of hospital.

"11. Surveyors should be directly employed and supervised by the Joint Commission.

"12. Surveyors should work with both administrator and staff.

"13. New surveyors should receive better indoctrination.

"14. Blue Cross and other associations should be requested not to suspend full benefits to non-accredited hospitals until those so requesting have been inspected.

"15. The American Medical Association should conduct an educational campaign for doctors relative to the functions and operations of the Joint Commission.

"16. The Committee also suggests that the American Medical Association and the American Hospital Association encourage educational meetings for hospital boards of trustees and administrators either on state or national levels to acquaint these bodies with the functions of accreditation.

"17. This Committee asks to be discharged upon submission of this report to the House of Delegates."

The reference committee of the House of Delegates added the following statement to strengthen the report.

"1. The problems of the exclusion from hospitals and arbitrary limitation of the hospital privileges of the general practitioner, and

"2. Methods whereby the following stated principles may be achieved:

"The privileges of each member of the medical staff shall be determined on the basis of professional qualifications and demonstrated ability."

"Personnel of each service or department shall be qualified by training and demonstrated competence, and shall be granted privileges commensurate with their individual abilities."

Graduates of Foreign Medical Schools

The House approved in principle a program for the evaluation of graduates of foreign medical schools. This calls for establishment of a central administrative organization to evaluate the credential of foreign graduates desiring to serve as interns or residents in American hospitals.

Private Practice by Medical School Faculty Members

"Another major action by the House involved the problem of private practice by medical school faculty members, which has been under study by the Committee on Medical and Related Facilities of the Council on Medical Service. The House adopted a Council report which stated 'that it shall be the policy of the American Medical Association that funds received from the private practice

of medicine by salaried members of the clinical faculty of the medical school or hospital should not accrue to the general budget of the institution and that the initial disposition of fees for medical service from paying patients should be under the direct control of the doctor or doctors rendering the service.'

"It was further recommended that adequate liaison be developed and maintained between each county medical society and any medical school or schools in its area; that the Council on Medical Education and Hospitals and the Association of American Medical Colleges urge all medical schools to assist and work with medical societies in developing such liaison, and that publicity emanating from a medical school should be in good taste and of a type which has the approval of the general medical community in that area.

"The adopted report also said: 'It is not in the public or professional interest for a third party to derive a profit from payment received for medical services, nor is it in the public or professional interest for a third party to intervene in the physician-patient relationship.'"

There were many other actions on a variety of subjects. These are abstracted and published in the Organization Section of the Journal of the American Medical Association. In the interest of more fully understanding the workings of the A. M. A. and the thinking that led up to the adoption of these measures, all members of The Medical Society of Virginia are urged to study these reports. In addition, those attending sessions of the A. M. A. should attend at least one reference committee meeting to learn how the pros and cons relating to various actions are threshed out before a definite statement is made. In reference committee, any member of the A. M. A. has the privilege of the floor to discuss a resolution referred to a reference committee. Attendance at one of these committee meetings is really enlightening, particularly to those who believe that "The A. M. A. is undemocratic" and run by a small group.

Your Delegates urge a closer study by all physicians of the workings of organized medicine at the local, state, and national level, and an active participation in these bodies.

W. LINWOOD BALL, M.D.
VINCENT W. ARCHER, M.D.
Delegates

Editorial Board

The Virginia Medical Monthly has kept well within the budget during the current year.

A number of changes have been made. The seal of The Medical Society of Virginia has been placed on the cover. Suggestions made at the meeting of the State Medical Journal Conference at Chicago last November have been followed. Other changes recommended by our Managing Editor, Miss E. Spencer Watkins, and members of the Editorial Board have been adopted. We trust the membership generally approve of these changes.

The circulation of the Monthly has increased with the growth of The Medical Society of Virginia, which now numbers 2630. Additional subscriptions which total 395 are sent to non-members, libraries, advertisers and other state journals. Thirty-four are sent to foreign countries

and three copies actually find their way to Moscow each month.

It is hoped that the members of the Society will continue to support their journal by contributing original articles and sending in data concerning component meetings and other items of interest to our members.

HARRY J. WARTHEN, M.D., *Editor*

Scientific Exhibits

Your Committee is pleased to report that from all indications another excellent scientific exhibit is in prospect for those attending the 1956 Annual Meeting.

Arrangements for the exhibit were handled on the local level by Dr. Marcellus A. Johnson, III. Dr. Johnson handled all applications and acted as liaison between the Committee and ADD, Inc., the firm once again responsible for the erection of booths, etc. Space requirements were studied carefully and individual requests granted whenever possible.

For the first time awards will be presented in two classifications. They are (1) exhibits prepared by institutions and (2) exhibits developed by individual physicians.

The Committee takes this opportunity to urge all members to visit the scientific exhibits and spend as much time with them as possible. These exhibits play an increasingly important part in postgraduate education.

FRANK M. BLANTON, M.D., *Chairman*
ANDREW F. GIESEN, M.D.
ALVIN C. WYMAN, M.D.

Legislation

The 1956 session of the General Assembly of Virginia was replete with bills and resolutions of interest to physicians generally, but few of them were very controversial, or of such a nature as to call for local aid in their passage or defeat.

HOSPITAL-PHYSICIAN RELATIONSHIP

Probably the most vital question before the Assembly was that of hospital-physician relationships generally, and particularly such relationships in state-supported and state-operated institutions and hospitals, and in private hospitals with respect to certain special services such as radiology, anesthesiology and pathology. The question involves the scope and extent of medical care which may be furnished by hospitals and institutions without violating the statutes limiting the practice of medicine to licensed physicians, and also the extent of medical service which may be rendered by physicians while serving on the staff of hospitals and institutions. In short, the question stems back into the big problem of what constitutes corporate practice of medicine by hospitals generally—a problem which is under study or in litigation in a number of states.

At one time during the session it seemed that proposed legislation of a drastic nature might be introduced and an unfortunate controversy precipitated with little time or opportunity given for study and deliberation. However, better counsel prevailed, and by agreement the problem was deferred until a later time. With the consent and approval of the Attorney General a resolution was introduced and later adopted unanimously referring the question of hospital-physician relationship to the Virginia

Advisory Legislative Council for a thorough study, with instructions to report its findings and recommendations to the Governor and the General Assembly not later than September 1, 1957. It is hoped that this study will begin at an early date, and that the hospitals and physicians with the aid of the study committee will be able to work out a friendly and mutually satisfactory basis for their combined services in the care of the sick, which understanding can then be implemented by any desired changes in the statute law. Hospitals and physicians are essential to each other, and the public welfare demands that their joint services be dedicated to the alleviation of pain and sickness, and that they work together to this end in friendliness and good will.

REGULATION OF PHYSICAL THERAPY

Early in the session the Legislative Committee was urged to sponsor legislation providing for the regulation and licensing of physical therapy. Although many members of the Committee were sympathetic with the desire of this group for recognition, it was the opinion of the Committee that a bill establishing another examining and licensing board in the medical field would not pass the General Assembly. It was suggested to the leaders of the group that they consider a plan under which examination and licensing would be done by the present State Medical Board, or in lieu of this that the problem of licensing be studied by the Virginia Advisory Legislative Council in the interim before the 1958 session of the General Assembly. A resolution providing for the study passed both Houses and such a study will be conducted during 1956 and 1957.

PRIVILEGED COMMUNICATIONS

A bill to make certain communications between physicians and patients privileged and not subject to disclosure except with the consent of the patient was prepared by counsel for the Committee and was supported by spokesmen for the American Psychiatric Association. The bill met with a good deal of opposition from certain insurance companies, and when it was finally reported out by the Senate Committee it carried an amendment which provided that the privilege should not apply in suits in which the mental or physical condition of a patient is an issue. As medical testimony is often used in connection with claims under insurance policies and for personal injuries, in which claims the physical condition of the claimant is an issue, and in will contests, where the mental condition of the testator is involved, the amendment greatly restricts the field in which the statute can be invoked. If in practice a need develops for its enlargement, the statute can be amended to meet the need. As a matter of fact there are many who believe that there should be no restrictions on medical testimony, and in support of this position they point out that until now Virginia and about half of the other states have gotten along very well without any statute limiting disclosure of communications between physicians and patients.

QUARANTINE OF TUBERCULAR PATIENTS OR SUSPECTS

A bill enlarging the powers of the State Health Commissioner with respect to the isolation or quarantine of persons having or suspected of having tuberculosis was

introduced at the request of the State Department of Health and promptly aroused a good deal of opposition in the Assembly. After a hearing the matter was referred to a sub-committee which prepared a substitute bill from which the more drastic provisions of the earlier draft were omitted. This bill passed both houses and became Chapter 482 of the 1956 Acts of Assembly. Under the statute a local health officer is given the power of quarantine or isolation at a place designated by the State Board of Health or the Commissioner, with a right of appeal to the Commissioner given any person aggrieved by the order of quarantine or isolation. By joint action of the Superintendent and the Commissioner any tubercular patient confined in a state institution may be transferred to any other institution for isolation or treatment. This provision will permit patients at the State Penitentiary to be transferred to State Sanatoria for medical care, and in the opinion of your chairman, is a very valuable addition to the present law.

MISCELLANEOUS

There were a number of other statutory changes which are of general interest but which can only be mentioned briefly. Section 37-75 of the Code was amended to increase from five to ten dollars the fee of a physician serving on a commission of lunacy, with a proviso that in the City of Richmond the City Council may fix the fee at an amount not to exceed ten dollars. The statute prohibiting fee splitting between physicians and surgeons was amended to provide that it shall not be construed to prohibit members of any regularly organized partnership of physicians or surgeons from making any division of their total fees among themselves as they may determine, or to prevent a group of practitioners from using their joint fees to defray their joint operating costs. Sections 54-496 to 54-498 of the Code were amended to permit the use of oral prescriptions in the administration of certain narcotic drugs and compounds having little addiction liability. The statute giving certain chiropractors and naturopaths temporary licenses expiring June 30, 1956, was not extended, this leaving about seventeen of these practitioners without licenses and subject to prosecution for unlicensed practice if they persist therein after June 30th. A bill to permit naturopaths to use x-rays for diagnosis and to prescribe certain drugs was killed in committee. Certain additional safeguards were provided in the possession and use of dangerous drugs. The fee for renewing permits to physicians authorizing them to sell or dispense medicines was increased from three to five dollars. Other matters of lesser moment required the time and attention of your Committee before and after the session, but most of these have been covered by the press and will not be referred to here.

Again your Chairman wishes to express to the members of the Committee his appreciation of their assistance and counsel, and to request their continued aid and cooperation in the important studies to be made during the next eighteen months.

JAMES D. HAGOOD, M.D., *Chairman*
W. C. CAUDILL, M.D.
DEAN B. COLE, M.D.
BENJAMIN W. RAWLES, M.D.
MALLORY ANDREWS, M.D.

JOHN C. WATSON, M.D.
EDWARD G. HADDOCK, M.D.
FRANK A. FARMER, M.D.
W. C. ELLIOTT, M.D.
WILLIAM H. BARNEY, M.D.

Medical Service

The Medical-Service Committee was instructed to study two major problems of the medical profession during the year of 1956. These two problems consisted of Physician Relationship and a request from the State Board of Health for assistance in the problem of proper disposition of Hill-Burton Funds which are, or may be available for Rehabilitation Centers, Hospitals for Chronically Ill, nursing homes and treatment and diagnostic centers. In addition to these two major problems, the Medical-Service Committee also discussed, during the course of its meetings, prepayment medical care plans, industrial health problems, and rural health problems.

Three meetings of the entire committee were held, one in January, one in March and the final one April 28, 1956. In addition, there were several meetings of the various sub-committees.

The Committee wishes to submit our report as follows:

1. *Hospital-Physician Relationship*—Chairman: Dr. James P. Williams

The Sub-committee on Hospital-Physician Relationship, held several meetings during the year with representatives of the various specialty groups throughout the State, and also with the State Medical Society legal advisors. The findings of the sub-committee are as follows: The State Legislature has appointed the VALC (which is the Virginia Advisory Legislative Committee to the State Legislature) to carry out a study of Hospital-Physician relationship during the next two years prior to the next regular meeting of the Assembly. The Committee feels that Dr. Walter Caudill should be appointed our representative on this VALC study and that the sub-committee on Hospital-Physician Relationship of the Medical Society should work closely with Dr. Caudill and should communicate its findings to the Virginia Radiological Society and the Virginia Pathological Society as well as any other interested groups. It was felt to be particularly important that any meeting with the VALC or any other lay group, that the medical profession present a united front and that all the potential arguments be thrashed out before hand so that there be no opportunity for criticism of the medical profession on the basis of not knowing what it wanted. The sub-committee also recommended that Dr. Caudill should also be notified at once so that he will be aware of his potential responsibility and also that he be informed that the Medical Service Committee and its sub-committee stand ready to help him in any way possible and that if he should desire any assistance from any group or any member of the faculty of the Medical School or Hospital Administrator, he should be empowered to call any individual or group, for his help. The above recommendations were endorsed by the Medical-Service Committee and Dr. King was requested to write to Dr. Caudill.

The second major problem, that of working with the State Health Department on the question of homes for

the chronically ill, nursing homes and rehabilitation centers, was discussed at all three meetings of the full Committee. The final meeting of the year was held at the Woodrow Wilson Rehabilitation Center in Staunton for the purpose of acquainting the members of the Committee with the Rehabilitation Center and its work. This proved to be a delightful meeting and was felt to be well worthwhile by all attending. At the present time, there is an investigation of the problems of the chronically ill in progress being made by the State Department of Health. This study covers such items as pay status, bed status, mental condition of the patient, reasons for remaining in the hospital, reasons for remaining in nursing homes, type of nursing service needed, etc. The sub-committees on Chronically Ill and Indigent Care recommended the following:

1. That chronic disease hospitals be constructed on a local and not on a State level (though, of course, they could be under the State supervision if indicated);
2. That establishment of diagnostic centers throughout the State not be done;
3. That study of the problems of the chronically ill and indigent and aged throughout the State continue; and
4. That a State-wide Conference on the problem of aged and chronically ill be held in conjunction with the Virginia Health Council (this meeting will be held in Richmond on November 8, 1956).

Pre-Paid Hospital Insurance: Chairman: Dr. Snowden Hall, Jr.

The sub-committee on Pre-paid Hospital Insurance, during the course of the year, realizing that abuse of Blue Cross by the policyholders constitutes a serious problem, at a meeting with Dr. Ackhart, the Executive Director of the Virginia Blue Cross Plan, and at his request, advised that a plaque with an explanatory article and an accompanying letter from Dr. King, be sent out to all the members of the State Society, and this has been done. This plaque is to be placed in the office of each doctor and explain that Blue Cross does not cover diagnostic service. There was a discussion of Blue Cross operating on a daily allowance or co-insurance basis and it was recommended to the Blue Cross Board of Directors that it investigate indemnity plans throughout the State to see if there is any way in which these plans may help the Blue Cross and its problems of abuse. There was some thought given to the possibility of pressing for legislature so that all pre-paid hospital care plans be offered only on a co-insurance basis. No definite action was taken on this.

It was pointed out by the sub-committee that in some areas in this country, physicians are enrolling in Blue Shield as a substitute for the time honored practice of professional courtesy. The Committee voted to recommend to the Council of The Medical Society of Virginia that it reapprove the principal of professional courtesy and make its thoughts known to the Southern Medical Association.

Industrial Health: Chairman—Dr. Charles L. Savage

At several meetings, the sub-committee on Industrial Health, submitted the following report:

1. The sub-committee on Industrial Health pointed out that compensation allowance for disabling injuries had been raised to \$30.00 per week and the Compensation Act is in the process of being revised.
2. The sub-committee recommended indorsement of the second injury law which failed to pass the recent State Legislature.
3. The sub-committee recommended that there be no changes in the Compensation Law as to physician choice as the present method is working very satisfactory.
4. The Committee recommended that post graduate education include in its curriculum some or all of the phases of occupational medicine.

The Medical-Service Committee concurred in the above recommendations.

Rural Health: Chairman—Dr. A. L. Van Name, Jr.

This sub-committee advised that the result of the health survey as conducted in Orange County has been reported but that there has been no word from physicians in Orange County as to the value of the survey from the physicians standpoint. The Committee instructed the Executive Secretary of the State Society to contact the physicians in Orange County with the idea of trying to find their views on the value of the survey.

The Chairman of the Committee wishes to take this opportunity of thanking all the members of the Medical Service Committee, as well as the numerous men who have given their time to work with the sub-committee on various problems, and also Mr. Robert Howard whose services have been invaluable during the past year.

RUSSELL V. BUXTON, M.D., *Chairman*

Membership

The Committee on Membership of The Medical Society of Virginia has had no matters brought to its attention during the current year, and, consequently, no meetings have been held.

The Society has gained many new members during the year, and the Committee is pleased to extend them a most cordial welcome. Since the names of our new members have been published each month, we shall not repeat them at this time.

We are delighted to have the honor of presenting the name of our retiring President, Dr. James P. King, for honorary membership in The Medical Society of Virginia, and take this opportunity to express our appreciation of the outstanding record he has made.

ALFRED P. JONES, M.D., *Chairman*

HENRY J. LANGSTON, M.D.

ACORS W. THOMPSON, M.D.

Ethics

No matters of importance have been brought before your Ethics Committee during the past year.

HOLCOMBE H. HURT, M.D., *Chairman*

Judicial

The Judicial Committee had no matters referred to it during the year, and, consequently, no meeting was held.

J. MORRISON HUTCHESON, M.D., *Chairman*

RICHARD P. BELL, M.D.

HUGH G. STOKES, M.D.

Public Relations

Public Relations, being an integral part of the everyday Practice of Medicine, is a continuous item in each medical office. As such, the work of this committee must continue around the calendar. Programs started in one year may frequently move over into the next, as occurred last year and is again occurring this.

The Medical Society of Virginia has been extremely fortunate for the past several years in having an Executive Secretary who can so ably double as Director of Public Relations. Mr. Robert I. Howard is responsible for a great amount of the efforts made by this committee, and the office personnel who assist him are very valuable in carrying on our work.

The most important item of the year for this committee is the County Society Officers Conference, held annually. In an effort to provide as attractive a setting as possible, Williamsburg Lodge was chosen for the Conference which was held there September 16-17th. The President and Secretary of each component society were invited as well as all of the members of the societies about Williamsburg. Many interesting topics were presented. Among them "A Doctor's Responsibility to His Community", "PR Problems in Physicians Office."

The Conference was quite successful and a great deal of material was made available to those attending.

The same plan is being followed again this year with the 1956-57 Conference to be held in Lynchburg on September 15, 1956. An outstanding group of speakers will be presented and much thought and effort on the part of Mr. Howard has gone into the program.

Other activities in Public Relations have spanned the year in a continuous program. Many local societies have enlisted the aid of other media in putting over successful PR activities. In the field of radio, 1391 programs have been aired by 23 different radio stations. Virginia continues to be one of the leaders in this method.

Continuing the success of previous years, Welcome Wagons over the state have distributed 121,840 pieces of PR literature so far this year. This has been supplied by the Society's office in Richmond.

The Reference Library Service mailed out 15,356 pieces of literature during the year. This material covered a wide variety of subjects dealing with our field.

The 1955 AMA Public Relations Institute in Chicago was attended by Dr. John Wyatt Davis, Jr., Vice-Chairman of our PR Committee and by Mr. Howard, Executive Secretary. The Eighth Annual Virginia Public Relations Conference, sponsored by the Virginia Chamber of Commerce and the Richmond Public Relations Association was held in Williamsburg in March. The Chairman of our PR Committee was privileged to speak to this group on "What's Ahead in Medical Public Relations".

"Current Currents", mailed individually to the membership for several years and containing timely information and PR tips, is now being included as a complete page each month in the Virginia Medical Monthly. This is on a trial basis and a survey of the membership now in process will determine its continuance.

The Society's office in Richmond has noted an increasing number of requests from physicians for information which they could use in preparing speeches. Apparent-

ly more and more physicians are becoming speakers, addressing local civic groups and others. Appropriate material is being provided whenever requested.

Last February a Medical Office Personnel Association was formed in Virginia. A committee has cooperated with us by presenting public relations courses for office personnel when requested.

This, briefly, is the report summarizing the activities of the Public Relations Committee for the year past. We hope that every member of this Society will assist us in putting over a satisfactory program each year. Without good public relations a medical office cannot continue to function satisfactorily. This field touches on every contact you, as a physician, have with every single patient. It behooves you to watch and improve your public relations.

- H. C. BATES, JR., M.D., *Chairman*
- JOHN W. DAVIS, JR., M.D., *Vice-Chairman*
- MASON C. ANDREWS, M.D.
- IRA L. HANCOCK, M.D.
- HARRY B. STONE, M.D.
- W. T. THOMPSON, M.D.

House

Your House Committee is happy to report that expenditures have been kept within the Budget (\$2600.00) during the past year despite unanticipated costs arising from a leaking roof and defects which have developed in the plumbing.

The Medical Society offices have been air conditioned by window units bought in the off season and at a considerable reduction.

All available space on the second and third floors is now occupied by medical or related organizations. One thousand three hundred and twenty dollars have been contributed by these organizations toward the upkeep of the headquarters building.

A breakdown of the costs of Building Maintenance and Repairs is as follows:

Upkeep (including repairs)	\$649.05
Fuel	353.66
Utilities	279.16
Taxes	466.83
Janitor's Salary	1131.00
Janitor's Supplies	96.99
Fire Insurance (5 year premium)	103.00
	<hr/>
	\$3079.69
Less Contributions of	1320.00
	<hr/>

Net Cost to Medical Society of Virginia \$1759.69

- HARRY J. WARTHEN, *Chairman*
- FLETCHER J. WRIGHT, JR.
- DON DANIEL

Grievance

The Grievance Committee has had a very quiet year thus far. Not a single case has been brought to our attention. Judging from a recent report I heard made at the Norfolk County Medical Society, by their Chairman,

all complaints have been handled on a local level, and this is the way it should be. Where there are complaints concerning a physician and a patient, the local committee can understand the problems much better by talking with them in person rather than through correspondence.

C. LYDON HARRELL, M.D., *Chairman*

Fiscal Policy

The Committee on Fiscal Policy of The Medical Society of Virginia met at Society headquarters on July 25 and had a 100 per cent attendance.

The Committee took note of the fact that over the years the Society has been fortunate to accumulate a modest surplus. The most recent financial statement lists the Society assets at \$150,000. It was brought out that some question existed as to whether or not such a surplus was in keeping with the Society's charter as a non-profit corporation.

Dr. Horsley advised the Committee that several suggestions had been received concerning use of the surplus. The suggestions included medical scholarships, contributions to the American Medical Education Foundation, a reduction in membership dues and a new headquarters building.

The Committee carefully considered each suggestion and concluded that the membership would receive greatest benefit from a new, modern and completely functional headquarters building.

Dr. Rawles, Chairman of the Special Committee on Society Headquarters Improvement, reported his findings concerning the cost of making certain alterations in the present building. It was brought out that although these alterations would make the present building more functional, they would not solve many of the basic problems such as poor parking facilities, decreasing property value, lack of meeting space, etc.

Dr. Rawles went on to report that the cost of a new building would run somewhere between \$15-\$17 per square foot. It was estimated that the Society needs a building of approximately 4,800 square feet which would cost in the vicinity of \$81,000. The cost of land would raise the total to approximately \$100,000.

After again reviewing the Society's current financial status, it was moved that the Committee recommend to the Council that a new headquarters building be constructed at a cost not to exceed \$120,000. The motion was adopted.

- GUY W. HORSLEY, M.D., *Chairman*
- HARRY C. BATES, JR., M.D.
- FLETCHER J. WRIGHT, JR., M.D.
- HAROLD W. MILLER, M.D.
- IRA L. HANCOCK, M.D.

Liaison with the Department of Public Welfare

No matters have been brought to the attention of the Committee and, consequently, no meeting has been held.

The chairman, however, met with Mr. W. L. Painter, State Welfare Department, and assured him of the Committee's desire to cooperate in every possible way.

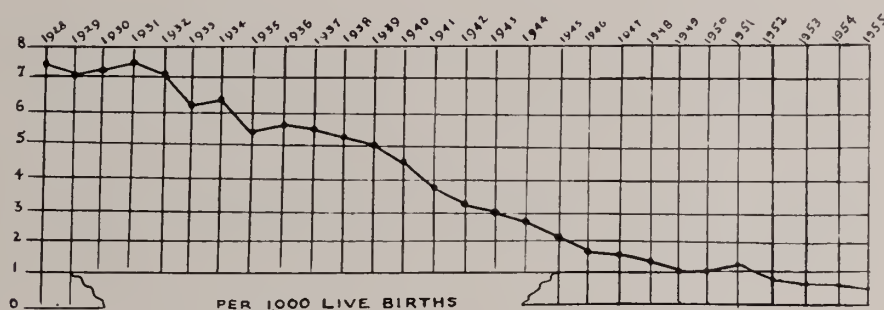
MALCOLM H. HARRIS, M.D., *Chairman*

Maternal Health

The Committee on Maternal Health met in the Rotunda Room at the Jefferson Hotel on July 25, 1956 with Dr. A. Tyree Finch presiding. All of the members were present.

The Committee endorsed the proposal of the Virginia Pediatric Society that the Legislative Committee of The Medical Society of Virginia be approached in regard to requiring the use of prophylactic silver nitrate solution in the eyes of newborn infants so that the medical schools and well established hospitals can be allowed to do research with appropriate locally-acting antibiotics in the prophylaxis of ophthalmia neonatorum. In endorsing this

MATERNAL DEATH RATE VIRGINIA 1928-1955



The Maternal Death Rate per 1,000 Live Births during 1955 was .62.

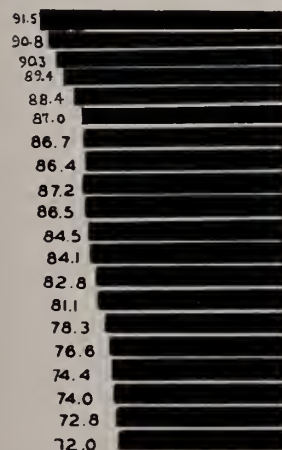
proposal it is to be kept in mind that the midwives are to be considered in the prophylactic that might be used.

Charts were distributed showing:

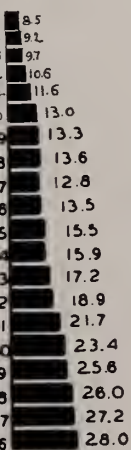
Thirty-one case reports of maternal deaths were reviewed and a selection of cases was made for a panel discussion at the meeting of the State Medical Society to be held in October. Reports of the decision of the Committee are to be made to those physicians who had requested that they be notified of the disposition of the cases.

PERCENTAGE DELIVERIES BY PHYSICIANS AND BY MIDWIVES VIRGINIA: 1936 - 1955

PERCENT BY PHYSICIANS



PERCENT BY MIDWIVES



There has been an increase in the number of deliveries by physicians and a decrease in the number of deliveries by midwives consistently during the past 20 years.

The following is given as a case report in order to show how the Committee arrives at a decision as to how a case should be classified:

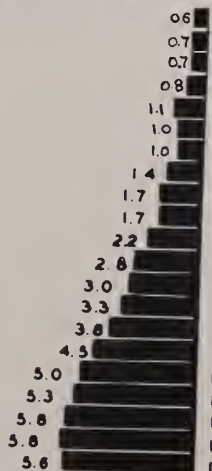
This patient was hospitalized 9/27/54 for an Elective Section because of a transverse position of the foetus which was determined by X-ray. There was no other pathology noted. A Section was done on the 3rd hospital day with a notation that the operation was uneventful. During the operation 500 cc. of whole blood, 1,000 cc. of Dextrose and 1 mg. of Hydrocortisone were administered. Post-operatively, extract of liver, Dicysticin, Lyso-adrenal Cortex and Stilbesterol was given. The pa-

tient was ambulatory on the 3rd post operative day. On the 8th post operative day, while sitting in a chair taking a bath, she fell forward on the floor, frothing at the mouth and expired 20 minutes later following failure of efforts at resuscitation.

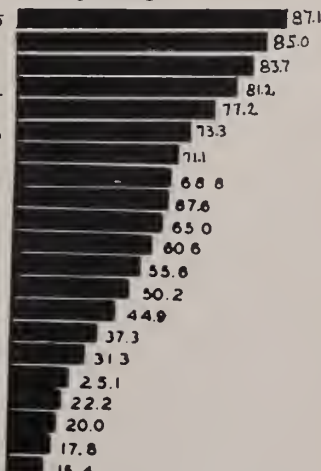
The Committee classified this as a non-preventable, obstetrical death following a classical picture of pulmo-

MATERNAL MORTALITY AND HOSPITALIZATION OF BIRTHS VIRGINIA: 1935 - 1955

MATERNAL MORTALITY PER 1000 LIVE BIRTHS

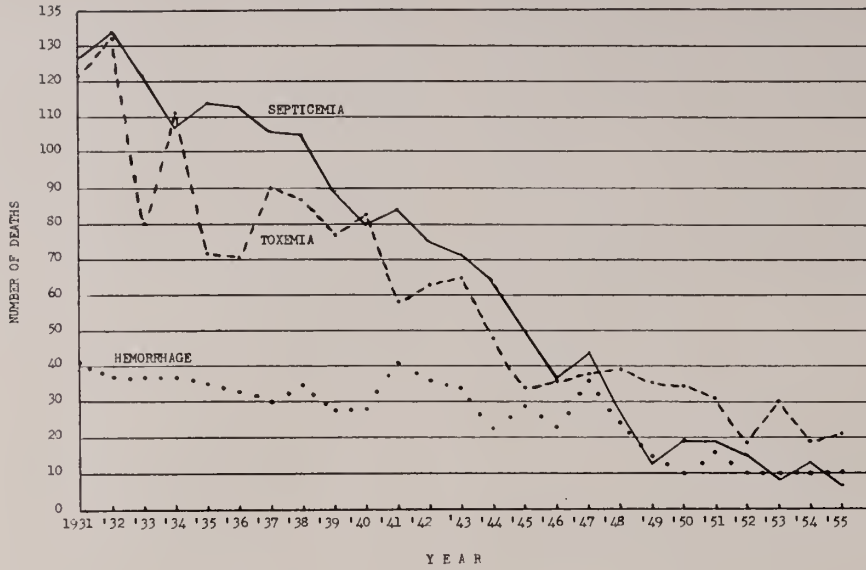


PERCENT BIRTHS IN HOSPITALS



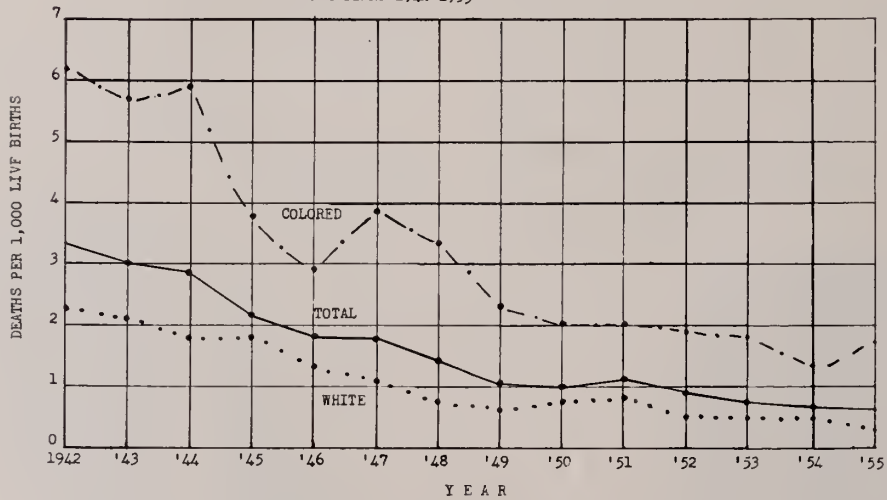
There has been an increase in the number of deliveries in hospitals associated with a decrease in maternal mortality during the past 20 years with the exception of 1951.

DEATHS FROM PUERPERAL SEPSIS, TOXEMIA, AND HEMORRHAGE IN VIRGINIA: 1931-1955



Deaths due to Septicemia, Toxemia and Hemorrhage have changed position during the past 25 years so that the order of importance is Toxemia, Hemorrhage and Septicemia in 1955.

TREND OF MATERNAL MORTALITY IN VIRGINIA, BY COLOR,
FOR THE YEARS 1942-1955



The Maternal Death Rate in the colored has been higher than the white throughout the years.

nary embolism after a non-morbid, post operative course. The indication for Caesarean Section was obstetrical and adequate. A pulmonary embolism can neither be predicted nor prevented.

A. TYREE FINCH, M.D., *Chairman*
MASON C. ANDREWS, M.D.
GARRETT DALTON, M.D.
JAMES J. DUNNE, M.D.
E. S. GROSECLOSE, M.D.
GEORGE S. HURT, M.D.
WALTER L. McMANN, M.D.
EDWIN RUCKER, M.D.
L. L. SHAMBURGER, M.D.
W. N. THORNTON, M.D.
H. H. WARE, JR., M.D.

Walter Reed Commission

The Walter Reed Commission of The Medical Society of Virginia met at Urbanna on July 24.

The future of the Walter Reed Birthplace was discussed at length and several proposals considered. Of particular interest to the Commission was an offer by the Walter Reed Community Betterment League to assume custodial care of the property. It was learned that the League had been promised a piece of land adjoining the Walter Reed property provided that "Belroi" be properly cared for and maintained. The land, belonging to Dr. Stubbs, Newport News, would be turned over to the League as a location for a community center.

It was reported that the Gloucester Chapter of the Society for the Preservation of Virginia Antiquities had also indicated an interest in taking over "Belroi".

An investigation of the Walter Reed Community Betterment League revealed that the organization was composed of responsible citizens sincerely interested in community progress and welfare. It was the consensus that the organization is completely reliable.

The Commission, therefore, adopted a resolution to lease the Walter Reed Birthplace to the Walter Reed Community Betterment League for a period of 10 years with the Society lending financial assistance in an amount not to exceed \$300 a year during the period of the lease. The Society would have the right of inspection at all times with the provision that the property be maintained in its present form as a shrine.

The Commission is pleased to report that the Walter Reed Memorial Association will soon erect a permanent historical marker on the highway leading to "Belroi". The Highway Department is cooperating with the Association in providing a suitable location.

The Commission calls to the attention of the House of Delegates the resolution contained in paragraph 5 of this report. It is requested that the House of Delegates approve this resolution and direct that a suitable lease be prepared without delay, in order that the Walter Reed Community Betterment League can gain possession of "Belroi" as soon as possible.

RICHARD B. BOWLES, M.D., *Chairman*
JOHN R. GILL, M.D.
RAYMOND S. BROWN, M.D.
HERBERT L. SHINN, M.D.

Child Health

The Committee on Child Health met at Society headquarters on July 27. Attending were: Dr. Paul Hogg, Chairman, Dr. Gayle Arnold, Dr. W. E. Chapin, Dr. Page Booker, Dr. John Walke, Dr. Robert Cox and Dr. Harry Cox.

Committee reports were discussed and Dr. Hogg inquired concerning the proper procedure to insure approval and action by the House of Delegates. The Executive Secretary of The Medical Society of Virginia was requested to acquaint the Committee with the procedure to be followed by the House in future sessions.

Considered next was the advisability of seeking modification of the law requiring use of prophylactic silver nitrate solution in the eyes of newborn infants. It was brought out that the Virginia Pediatric Society approved such a modification in order that research can be made possible in our medical schools. This would merely be "permissive" legislation. Mentioned was the fact that some states, notably California, have already modified their laws in this way. The Committee, after careful consideration, recommended that the present law requiring the use of prophylactic silver nitrate solution in the eyes of the newborn be modified to permit the two medical schools in Virginia to conduct research with appropriate locally acting antibiotics.

The make-up of the Committee was then discussed and it was the consensus that at least two general practitioners should be included. It was thought that the general practitioners recommended for Committee appointment should be from rural areas. Mentioned for consideration were Dr. M. Mercer Neale, Jr., Heathsville, and Dr. Louis P. Bailey, Nathalie.

Next on the agenda was the question of whether or not nurses should wear masks while in the nursery. It was brought out that it is now considered ineffective protection if a mask has been worn 20-30 minutes. It was stated that the mask can be contaminated after that time. The following portion of the maternal hospital law was read: "Nursery nurses must wear a clean gown, cap, and mask, in addition to uniform, when handling babies. Physicians must wear masks and gowns when entering the nursery."

After considerable discussion, it was moved that that portion of the maternal hospital law referring to *nursery nurses* be amended by deleting the word "mask". Physicians, etc., entering and leaving, should wear them. The motion carried.

A discussion of the infant mortality rate followed and it was asserted that ways and means should be devised to insure proper care of premature infants. It was considered quite important for each hospital to have some interested physician in charge of the nursery. It was also felt that more autopsies are needed among the premature group in order to develop more factual information. It would also be well if more fetal-neonatal conferences could be held around the State. It was then moved that each hospital in Virginia be contacted and requested to furnish the name of the physician in charge of the nursery, and if need be, that one be appointed by the hospital staff in order that the Committee on Child Health might contact that physician concerning matters

pertaining to care of the newborn. The motion was adopted.

Considered next was the problem of babies being taken from the hospital too soon. It was mentioned that often the family physician will assume responsibility. It was believed that such occurrences point up the need of better education in proper care of newborn infants, especially premature. The difficulties of such an educational program were acknowledged.

There was some thought that malformations should be better listed and described on birth certificates. It was moved and adopted that the Society urge the proper officials to amend the birth certificate form in such way as to permit the listing of malformations.

The Committee then discussed the problems connected with school health program. It was brought out that quite often proper referral methods are not used by school physicians. Dr. Robert Cox was requested to give the problem careful study and let the Committee have a list of suggestions for school board physicians.

There being no further business, the meeting was adjourned.

The recommendations, then, to be acted on by the House of Delegates are the following:

1. The present law requiring use of prophylactic Silver Nitrate in the eyes of newborns should be modified to permit the two medical schools in Virginia to conduct research with locally acting antibiotics.
2. The portion of the maternal hospital law referring to nursery nurses should be amended by deleting the word "mask".
3. Birth certificate forms should be amended in such a way as to permit the listing of congenital malformations, rather than merely a check mark as to their presence or absence.

PAUL HOGG, M.D., *Chairman*

Cancer

On February 8, 1956, the Cancer Committee received a request for approval of the Riverside Hospital Tumor Clinic at Newport News, Virginia, that had been recently reorganized. This was reviewed by the committee and approved on March 5, 1956.

On July 26, 1956, the Cancer Committee reviewed the activities of the following Tumor Clinics and recommends certification of these clinics for the coming year.

- 1) Arlington Hospital Tumor Clinic, Arlington
- 2) McCluer Tumor Clinic, Alexandria
- 3) Kings Mountain Tumor Clinic, Charlottesville
- 5) C & O Tumor Clinic, Clifton Forge
- 6) Memorial Hospital Tumor Clinic, Danville
- 7) Lynchburg Tumor Clinic, Lynchburg
- 8) Eastern Shore Tumor Clinic, Nassawadox
- 9) De Paul Hospital Tumor Clinic, Norfolk
- 10) Norfolk General Tumor Clinic, Norfolk
- 11) Riverside Hospital Tumor Clinic, Newport News
- 12) Wise County Tumor Clinic, Norton
- 13) Portsmouth Tumor Clinic, Portsmouth
- 14) Clinch Valley Tumor Clinic, Richlands
- 15) Medical College Tumor Clinic, Richmond
- 16) Lewis-Gale Hospital Tumor Clinic, Roanoke

- 17) Memorial Hospital Tumor Clinic, Roanoke
- 18) Jefferson Hospital Tumor Clinic, Roanoke

After much consideration and study of the progress made by the various clinics the committee made and notified them of the following recommendations:

- 1) Each Tumor Clinic with the exception of those two in medical schools rotate the directorship every two or three years.
- 2) That more effort be made toward increasing attendance of practicing physicians at Tumor Clinic meetings.
- 3) That at periodic intervals an authority on some phase of Cancer be invited from within or outside of the area to discuss cases in his specialty and that the physicians in the area be notified prior to his planned participation.

A survey was made of the number of cytology studies throughout the State during the past year. This survey included the cost to the patient, the time involved to receive reports, the method of charging and an estimate of the volume that could be handled within the State. After studying this survey, the committee recommended that more effort be made to increase these studies during the coming year.

In conjunction with the American Cancer Society and the Virginia Society for Pathology, an exhibit will be prepared for the annual State meeting.

The committee briefly studied the biopsy program supported by the State Health Department and had no recommendations on this matter.

The committee is in favor of having discussed before as many groups as possible the value of the Papanicolaou smear. Efforts at first are to be concentrated on publicizing the significance of the vaginal smear and in turn the value of such studies on various secretions from the body.

The committee is devising a form to be adopted for the use of obtaining pertinent and comparative information from the clinics to be used for annual reports.

JOHN R. KNIGHT, M.D., *Chairman*
G. J. CARROLL, M.D.
GEORGE COOPER, M.D.
FRANK D. DANIEL, M.D.
WILLIAM D. DOLAN, JR., M.D.
JOHN HOOKER, M.D.
JOSEPH W. HOUCK, M.D.
A. C. WYMAN, M.D.

Tuberculosis

The Tuberculosis Committee met this year on January 5, 1956, just prior to the meeting of the State Legislature. All members of the committee were present except one.

The legislative program of the Virginia Tuberculosis Society was discussed in detail with particular reference to the proposed quarantine law for the control of tuberculosis. This committee unanimously approved this program and our recommendation was forwarded to the Legislative Committee of The Medical Society of Virginia.

The recommendation was enacted at the 1956 meeting of the State Legislature. We believe this law will be a further step forward in the control of Tuberculosis in Virginia.

WILLIAM H. BARNEY, M.D., *Chairman*

Conservation of Hearing

As in previous years Virginia's effort in the field of Conservation of Hearing is largely concentrated at the University of Virginia and the Medical College of Virginia, although the new Speech and Hearing Centers in Lynchburg and Norfolk are contributing a splendid addition to this fruitful work. Under the direction of Dr. G. S. Fitz-Hugh, Professor of Otolaryngology, and Dr. James M. Mullendore, Director of the University of Virginia Speech and Hearing Center, an active clinic program of diagnosis and therapy has been conducted. In addition surveys of speech and hearing disorders were made in the Albemarle County and Charlottesville schools and a hearing survey was made of 3,500 students in the Danville public schools.

During the past year, at the Medical College of Virginia Hearing and Speech Center, under the direction of Dr. P. N. Pastore, Professor of Otolaryngology, and S. James Cutler, Audiologist, more than a thousand patients have been given hearing evaluations, auditory training, and hearing aid orientations. This center is working closely with the Special Education Department of the Richmond Public Schools and the State Board of Education, and has undertaken a study of hearing and speech problems at the Crippled Children's Hospital.

The Lynchburg Speech and Hearing Center is actively engaged in a hearing survey of the Lynchburg schools, and conducting a diagnostic and therapeutic clinic. Slightly less than nine hundred second grade children were surveyed in January.

The Virginia Hearing Foundation, under the chairmanship of Dr. Fletcher Woodward of Charlottesville, is organizing an impressive program in the field of Conservation of Hearing. With the financial assistance of the Ford Motor Company and Miller & Rhoads, a Ford station wagon with electronic equipment will be available this fall for a rural survey of hearing defects. The Foundation is also planning a private school for the deaf, the first in southeastern United States.

F. H. MCGOVERN, M.D., *Chairman*

Poliomyelitis

The Poliomyelitis Committee, in full attendance, met at the request of Dr. Mack I. Shanholtz, Commissioner of Health of the State of Virginia on March 21.

At that meeting Dr. Shanholtz announced that the drug firms had not produced the anticipated amount of poliomyelitis vaccine. On account of his report the committee decided that the then designated group to receive vaccine 1-10 years be continued until such time as vaccine would be in greater production.

It was further decided that the group, known as pregnant women, should be given priority in any future consideration of extending eligibility for vaccine. This was later done.

As more vaccine was accumulated by the State Health Department other age groups were added. The 10-14 years age group was added, to be followed by extension of age limit to 20 years of age.

As of August 1, 1956, the per cent of those receiving one dose of the Salk vaccine in the group 0 through 19

years of age and pregnant women is 40.6% for the State of Virginia. Except for a few, the remaining states of the United States show percentages from 40 to 70 per cent coverage. Nebraska claims 90%.

The administration of vaccine judged by the per cent of Federal vaccine used varies in the different localities within the state. In one community the percentage of those receiving one inoculation within the selected group is as low as 5.8%. Another community presents 67.2%. The average for the State is 29.2%.

Results to a very limited extent may be considered. From personal contacts with poliomyelitis cases admitted to Medical College of Virginia Hospital, the following observations may be noted.

For the year, 1955, there were 103 cases admitted with the diagnosis of poliomyelitis or suspected poliomyelitis. Nine of these cases showed definite paralysis. The rest of the group showed no paralysis. For that reason they were diagnosed as viral or aseptic meningitis. Forty-seven of the cases admitted were studied through viral cultures with the help of the National Institute of Health, Bethesda, Md. Twenty-four showed viruses of some type; 23 showed no growth of viruses; 6 paralytic cases were studied with 5 showing positive stool cultures for poliomyelitis virus Type I. One non-paralytic case who had received 2 Salk inoculations showed poliomyelitis virus Type I from stool. The rest of the positive viral cases studied either showed the Coxsackie strains, the Echo strain or undetermined viruses. Two non-studied, non-paralytic cases had received one inoculation of Salk vaccine.

For the year 1956, from January 1 to August 18, inclusive, there have been 27 cases admitted for the diagnosis or treatment of poliomyelitis. Of this group there have been 11 paralytic cases, including one death. Seventeen showed no paralysis and were classified as non-paralytic or viral. None of the paralytic cases had received Salk vaccine. Among the non-paralytic cases, 4 had received 1 Salk inoculation, 3 cases, 2 inoculations and 1 case 3 inoculations.

The one death was a mother, 36 years of age who died from bulbar paralysis. Her 2 children, five and two years of age who remained well had received 2 inoculations of Salk vaccine.

The evidence presented here on the value of Salk vaccine is scant, but this evidence, with other reports as favorable from other communities, should make one consider the value of Salk vaccine in the prevention of paralytic poliomyelitis.

From recent correspondence with your society's President, Dr. King, it is quite apparent that he feels that The Medical Society of Virginia should show more interest in the present immunization program against poliomyelitis.

Statistics from the Department of Health of the State of Virginia, which are not complete, indicated that the percentage of individuals in recognized age groups, inoculated against poliomyelitis by the Salk vaccine in Virginia, do not compare favorably with the other states who have obtained a much higher percentage of inoculants.

Correspondence with the members of the Poliomyelitis

Committee indicates that the majority of its members are in accord with Dr. King's ideas. They feel that the present immunization program against poliomyelitis should be more thoroughly carried out. It will need full cooperation of all the members of The Medical Society of Virginia.

Since the immunization program in Virginia has shown signs of protection against the dreaded effects of poliomyelitis and there have been no deleterious effects from the use of the Salk vaccine in Virginia, the committee feels that they should go on record advocating that The Medical Society of Virginia participate in a program through its members. It should consist of two inoculations this fall and one in late spring using the Salk vaccine to all eligible groups. They feel that poliomyelitis should be added to the protected diseases, such as variola, pertussis, diphtheria, tetanus and others.

Such a program of inoculations carried out by the local physicians throughout the State of Virginia, should materially reduce the morbidity and mortality of the disease. At the same time it will demonstrate to the citizens of this State that the medical profession is thoroughly interested in the protection of their health and welfare.

LEE E. SUTTON, JR., M.D., *Chairman*
E. A. HARPER, M.D.
ROBERT C. HOOD, M.D.
CHARLES B. BRAY, JR., M.D.
McLEMORE BIRDSONG, M.D.
MASON ROMAINE, M.D.
JAMES M. SUTER, M.D.

Mental Hygiene

Shortly after the 1955-56 committee was formed the Chairman attended the meeting of mental health representatives of the State Medical Associations in Chicago. This meeting was sponsored by the Council on Mental Health of the American Medical Association. This second annual meeting of the mental health representatives was profitable and enlightening.

The following subjects were presented by nationally known authorities: (1) the narcotics problem, (2) the future relationship with clinical psychologists, (3) the commitment problem, (4) the establishment of psychiatric units in general hospitals, (5) the setting up of psychiatric consultation services, (6) the development of committees on mental health at the county medical society levels and (7) many other items.

It is suggested by the Mental Hygiene Committee that the American Medical Association has a great deal of literature available dealing with the above listed items and our committee strongly urges that anyone particularly interested should contact the Council on Mental Health of the American Medical Association.

The committee's activity this year was of particular interest in that the General Assembly was meeting in Richmond and due to be considered were a number of items in which the Mental Hygiene Committee had more than a casual interest. These were (1) the establishment of a hospital for mentally disturbed children was strongly recommended and we felt that it should be constructed near one of the teaching centers. (2) Although the

psychiatric institute had been previously approved in theory the committee suggested to The Medical Society of Virginia that funds be made available so as to establish a permanent training program correlating the teaching hospitals and the vast amount of clinical material available in the hospitals of the Department of Mental Hygiene and Hospitals. (3) The sub-committee on alcoholism, whose chairman is Dr. David Wilson, supported the recommendation of the Governor's Commission to study the program for care of alcoholics and particularly recommended the following items: (a) A program of education on problems of alcoholism with appointment of a supervisor of education; (b) expansion of the treatment center at the Medical College of Virginia; (c) establishment of a treatment center at the University of Virginia Hospital in Charlottesville together with an out-patient clinic at Charlottesville; (d) establishment of further out-patient clinics to serve congested areas, especially in the Abingdon area, the Alexandria-Arlington area, and the Norfolk-Hampton Roads area; (e) continuation and appropriate expansion of the research programs; and (f) provision for a few beds in general hospitals in the neighborhood of the out-patient clinics to be available for special emergency use by the physicians-in-charge of the out-patient clinic. (4) The sub-committee on alcoholism and also the entire Mental Hygiene Committee feels that the report of the Special Committee to study the treatment of alcoholism as set up by The Medical Society of Virginia on October 18, 1955, is unduly pessimistic and does not represent the consensus of opinion regarding the treatment of alcoholics. (5) The committee also gave its full support to the proposed bill regarding compulsory blood tests for alcoholic levels of persons charged with driving "under the influence."

The problem of drug addiction in the State of Virginia in a preliminary form was undertaken by Dr. John R. Saunders and we strongly urge that this be continued in next year's committee.

Dr. David M. Wayne, as a member of the Mental Hygiene Committee, has submitted a preliminary report on nursing homes in Virginia and although this study is not complete there are a number of recommendations which the committee has under advisement and will attempt to carry to some conclusion in the future.

The committee wishes to express its appreciation to Blue Cross and Blue Shield for its coverage of mentally ill patients and hopes that means will be found to extend this coverage to at least thirty days. Unfortunately, Dr. Richard J. Ackart, Director of the Virginia Hospital Service, was unable to meet with the committee this year but we appreciate his considerations in the past and hope that they will continue in the future.

The committee has strongly felt, and this has been an idea which has had a lot of continuity throughout its history, that education of the medical profession in the State of Virginia was one of its prime functions. In view of this, it was decided that at the next meeting of The Medical Society of Virginia a panel on emotional diseases and psychosomatic disturbances should be included and we take pleasure in announcing that this has been accomplished under the guidance of this committee.

Finally, the Chairman would like to convey to every

member of our committee as well as those of the subcommittee his appreciation of the time and effort in tackling the problems presented.

THOMAS S. EDWARDS, M.D., *Chairman*
DAVIN C. WILSON, M.D.
JOHN R. SAUNDERS, M.D.
GRANVILLE L. JONES, M.D.
JOHN B. MCKEE, M.D.
JOHN T. T. HUNDLEY, M.D.
GEORGE I. MYER, M.D.
DAVID M. WAYNE, M.D.

American Medical Education Foundation

On January 22, the chairman attended a meeting in Chicago for all of the state chairmen of American Medical Education Foundation Committees. The national chairman, the president of the AMA and several medical school deans emphasized the great importance of these funds to the medical schools.

On February 29, a meeting of the committee was held in Richmond. Most of the members from the eastern part of the state attended. On March 13, a committee meeting was held in Roanoke for these members in the middle of the state. On April 12, a meeting was held in Marion for the Southwest members.

The members have been quite active in spreading the facts about the AMEF at hospital meetings and county society meetings. Many have written personal letters to all the physicians in their districts.

The response of Virginia physicians as a group has been quite disappointing. It has been aided somewhat by the offer of the Ford Foundation to match some of the funds contributed by individuals. The entrance of the Federal Government into education plus the clamoring of medical school deans for public funds have undoubtedly dissuaded many physicians from contributing.

The committee firmly believes that we each owe a personal debt to our medical schools and will make further efforts to raise the contributions of Virginia as high as possible. An exhibit at the State Society meeting and additional appeals by letter are planned.

MARCELLUS A. JOHNSON, III, M.D., *Chairman*

National Legislation

The Committee has had no formal meeting since the Chairman was of the opinion that this would serve no useful purpose.

The Committee was composed of the Councilors from each Congressional District who, in turn, chose several subcommittee members from their own districts. This was done to ensure the most even coverage possible and the rapid dissemination of information when speed was required.

During the past year, most of our attention was centered on HR 7225 relative to O.A.S.I. disability payments at age 50. Our Senators and Representatives were contacted several times by letter, phone, and telegraph.

Contacts on other bills were also made in the same way.

VINCENT W. ARCHER, M.D., *Chairman*
JOHN C. WATSON, M.D.

JOHN P. LYNCH, M.D.
A. A. CREECY, M.D.
WALTER P. ADAMS, M.D.
BENJAMIN W. RAWLES, JR., M.D.
WILKINS J. OZLIN, M.D.
LOUIS P. BAILEY, M.D.
FRANK A. FARMER, M.D.
HAROLD W. MILLER, M.D.
McLEMORE BIRDSONG, M.D.
JAMES P. WILLIAMS, M.D.
HARRY C. BATES, JR.

Federal Medical Services

The chairman of the Committee on Federal Medical Services attended the Chicago meeting arranged by the AMA and the Department of Defense to consider the matter of implementing Public Law 569 as it pertains to medical care of dependents of service personnel. The law becomes effective December 7, 1956.

There was a general discussion of the various sections of the law relating to the method of its operation and the ways of its administration. The main discussion centered around the recommendation of a control agency to negotiate with the Department of Defense as to the selection of the representative body of the state and territorial medical societies for the establishment of regulations, forms, contracts, and procedures subject to the ratification by such medical societies.

Representatives of the various state societies present at the meeting, with the exception of nine, voted that they did not have the authority to commit their societies to any agency such as Blue Shield or Private Insurance Industry without consultation and approval by their respective states societies.

It was agreed that the representatives would so inform their state societies. Representatives of the Department of Defense requested that the state societies decide which agency they preferred and inform the American Medical Association before September 8, 1956, at which time a high level conference would be held by the Department of Defense to decide which administrative agency would administer the medical care program.

It is recommended that a meeting of the Council of The Medical Society of Virginia be held to decide whether the Private Insurance Industry or Blue Shield would be the contracting agent for Virginia.

The decision must be made before September 8, 1956, which will not permit discussion of this all-important decision at the next regular meeting of the Society.

It was the opinion of many of the approximately two-hundred physicians attending at Chicago that this decision was more far reaching than the "Care of Medical Dependents" and whenever the Federal Government paid for a package plan for care of all Federal employees that the agency so selected to administer that plan and eventually administer complete socialized medicine.

In many states, the medical profession, instead of controlling, is dominated by Blue Cross and Blue Shield and whether Blue Shield or the Private Insurance Industry should be selected as the agency for administration of Public Law 569 should be carefully considered. The members of the Committee on Federal Medical Services of

The Medical Society of Virginia with whom the chairman talked favored the Private Insurance Industry.

Since the above was written, a special meeting of Council has been held and the matter of medical care for service dependents discussed in detail. It was the consensus that The Medical Society of Virginia should co-operate with the Department of Defense. After considerable debate, the Council voted six to five to recommend Blue Shield as contracting agent at the program's outset.

JOHN T. HAZEL, M.D., *Chairman*

Conference On Medical Care in the Bituminous Coal Mining Area

Methods of developing better liaison between the medical profession and the United Mine Workers Welfare and Retirement Fund, in order to continue the gains made in improving the quality of medical care for coal miners, was the major theme of the Fourth Conference on Medical Care in the Bituminous Coal Mine Area, held May 6, 1956 in Charleston, West Virginia. The Conference was sponsored by the Committee on Medical Care for Industrial Workers of the Council on Medical Service and the Council on Industrial Health of the American Medical Association. It was attended by ninety representatives of the state medical societies, the American Medical Association, and the UMWA Welfare and Retirement Fund.

States represented at previous conferences included Virginia, Tennessee, West Virginia, Pennsylvania, and Kentucky. Also, attending at this time were representatives of the medical societies of Alabama, Arkansas, Colorado, Illinois, Ohio and Oklahoma.

Prior to the conference there was a two-day field trip which covered approximately four hundred miles in the Bluefield-Beckley coal mining area of West Virginia and Virginia. They visited a dozen hospitals, clinics, medical group buildings, and coal camp physician's offices. They also saw an exhibition mine, and toured part of an operating shaft mine below the surface. The field trip offered a first hand view of how coal miners live, work and receive medical care.

One of the conference highlights was a report on the so-called Pennsylvania agreement between the Medical Society of the State of Pennsylvania and the Medical Service of the UMWA Welfare and Retirement Fund which was outlined by the chairman of the Liaison committee. Basic points of the agreement as outlined are as follows: 1. All contemplated changes in operating policy of the fund shall be presented on a state level, with the reasons for the proposed changes. If no agreement is reached on a state level, the problem will be referred to the A. M. A. Committee on Medical Care for Industrial Workers. 2. All participating hospitals shall establish full medical audit committees, to assure a high quality of medical care and to insure that physicians are judged by the medical profession and not by any third party in the field of medical care. 3. The agreement recognizes not only the specialty groups but also the county medical society as a qualifying agency in determining the competency of a participating physician. 4. All who apply as

participating physicians shall be listed in a designated category with the mutual approval of the fund and the county medical society. 5. Causes for removal of physicians from the participating list are defined. 6. The agreement establishes a definite system of liaison, including the local, county, district, state and national levels of organized medicine.

Reports were also given from the four other bituminous coal states and the Kentucky delegates were very much interested in how they were going to manage and function with the UMWA hospitals in their area. The Tennessee delegates pointed out that people today want comprehensive medical care and urged the medical profession to give close attention to the difficult problems that exist with respect to quality, distribution, and cost.

Consultation service was also recommended for the existing hospitals in the area. It was felt wise that the local medical societies have advisory committees to work with the UMWA.

Reports were also heard from the administrators of the UMWA Welfare and Retirement Fund from the Pennsylvania, Kentucky, West Virginia and the Knoxville areas.

The area directors spoke frankly that conditions had improved and they thought that the people received a much higher medical care than had been done in the past and that progress was being made.

Dr. Draper summarized the area medical directors' remarks in saying that all the Fund had ever asked and continued to ask was a good quality of medical care be provided for its beneficiaries at a cost that was fair and just as determined by the medical profession itself. He said they were grateful to organized medicine for providing the means whereby all the factors giving rise to controversies could be presented to fair, unbiased, judicial bodies at county, regional, state and national levels for examination, investigation and recommendation based on full knowledge and understanding of the background and all the elements involved.

Reports were heard from three members of the Committee on Medical Care for Industrial Workers who took part in a panel discussion. They urged recognition of the fact that change is inevitable and said that a program like the UMWA is the antithesis of socialized medicine and would help prevent government control over medicine. One member stated that there are nonmedical as well as medical reasons for the problems of overhospitalization and suggested a study of the experience of the UMWA Memorial Hospitals throughout the coal area.

We then heard from Dr. Leo Price of New York City, a member of the A. M. A. Commission on Medical Care plans, who reported on the highlights of the two-day field trip to the Bluefield-Beckley coal mining area. He was very much impressed with the services rendered by the hospitals and the good service which he thought was being rendered to patients in this area. He stated that coming from the metropolitan area, one of the interesting things he saw was how these hospitals had taken on and were providing services to the medically indigent and he felt that something should be worked out to help carry this load by these hospitals.

As I previously stated, the field trip also included visits to the hospital in the Princeton, Bluefield, and Richlands

area. They were then guests of the local medical societies for luncheon in Bluefield and Beckley.

Dr. William A. Sawyer of Rochester, New York, Chairman of the Committee on Medical Care for Industrial Workers, presided over the conference. Dr. A. R. Lutz, Parkersburg, president of the West Virginia State Medical Association, gave the address of welcome.

It was decided at this meeting that these conferences will continue next year. In addition to the five states previously represented, there will be delegates from the liaison committees of Alabama, Arkansas, Colorado, Illinois, Ohio and Oklahoma.

JAMES P. WILLIAMS, M.D., *Chairman*
H. B. MULHOLLAND, M.D.
KINLOCH NELSON, M.D.
W. B. BARTON, M.D.
JOHN O. BOYD, JR. M.D.
MACK I. SHANHOLTZ, M.D.
RUFUS BRITTAIN, M.D.
THOMAS HUNTER, M.D.

Physicians Liability Insurance

During our last annual meeting, the House of Delegates ratified an agreement between the St. Paul Mercury and Indemnity Company and the Society, whereby all acceptable members could obtain professional liability insurance without the necessity of purchasing additional and unrelated forms of insurance. The contract provides an annual or semi-annual audit of losses, reserves and expenses and that this information be made available to our Executive Secretary. Should the experience in Virginia be favorable, application may then be made to the State Corporation for a reduction in the cost of the insurance.

It was not the intention of the Committee to convey the impression that acceptance of the St. Paul contract was the *only* solution to our liability insurance problem. On the contrary, those physician-members who are satisfied with their present coverage should think seriously before making a change in their carrier. On the other hand, the success of the Program—and the eventual reduction in the cost of liability insurance—will largely depend upon the *number* of physicians who participate in the St. Paul contract.

Prior to the inception of our present program, other major companies writing liability insurance were contacted and invited to submit a proposal. Without exception they stated that they were not interested in a state-wide agreement because their experience with the line had been so unfavorable. However, when the present program with the St. Paul Mercury and Indemnity Company was inaugurated each of these companies made desperate efforts to retain their present policy holders. During an open meeting of one of our larger component societies, the companies who had previously complained of the "burden" of carrying medical liability insurance and had often demanded other lines—such as automobile insurance—were forced to admit that they were now ready, willing and anxious to sell professional liability insurance to our members. This admission alone made the work of the Committee seem worthwhile.

One of the chief aims of the Committee has been the

education of our own members; first, in the advantages of volume participation with one company and second, the reduction in the incidence of law suits. This part of the Program has been done largely by our Executive Secretary, Robert I. Howard, who met with 15 component societies throughout the State to explain the program and answer questions from the floor. As a result, approximately 75% of the Society's membership has been contacted and properly informed. The Committee wishes to commend Secretary Howard for the excellent and efficient manner in which he has performed the major part of this work.

Statistics show that more than 90% of law suits against physicians originate as a result of careless remarks made by other physicians. It is therefore important to each individual doctor that he exercise care when criticizing the treatment or work of another physician in the presence of the patient, irrespective of how he may feel as to its merit.

The committee is of the opinion that our Liability Insurance Program has made satisfactory progress during its first year in operation. Mr. Don Hawkins, Secretary of the St. Paul Mercury and Indemnity Company, has expressed his complete confidence in the eventual success of the program in Virginia. Further, he believes that with adequate participation we may look forward to a rate reduction within the next few years.

FRANK A. FARMER, M.D., *Chairman*
CHARLES V. AMOLE, M.D.
JAMES L. CHITWOOD, M.D.
W. CALLIER SALLEY, M.D.
LOUIS P. BAILEY, M.D.

National Emergency Medical Service

The committee on National Emergency Medical Service has requested each component society to show the film "A FLASH OF DARKNESS", which was prepared by the Los Angeles County Medical Society. It is hoped that those societies which have not shown this film will attempt to do so as soon as possible.

The committee was represented at the Fourth Annual Civil Defense Conference in Chicago on June 9.

FLETCHER J. WRIGHT, JR., M.D., *Chairman*

Advisory To Woman's Auxiliary

This committee has acted whenever called upon. One of the outstanding things has been the approval of a suggestion that a permanent committee to aid the Crippled Children's Hospital be formed. This seems to be a very good plan.

The Auxiliary has certainly been quite busy during the year and as chairman of the committee I wish to commend them for their excellent work. It is a pleasure to serve The Medical Society of Virginia in any capacity. This is one of the most rewarding types of service anyone can have.

CHARLES L. OUTLAND, M.D., *Chairman*
DONALD S. DANIEL, M.D., *Vice-Chairman*
WILLIAM V. RUCKER, M.D.
LLOYD B. BURK, M.D.

To Assist the American Diabetes Association

The committee to assist the American Diabetes Association has not had any matters presented to it during the past twelve months other than the notice about the week for Diabetes Detection and Education. Since this is a problem for the local diabetes society, the committee has not needed to take any action.

WILLIAM R. JORDAN, M.D., *Chairman*

Venereal Disease Control

The Venereal Disease Committee has sponsored a biostatistical survey, the results of which are not available at this time. However, it is hoped that mimeographed copies of the Committee's reports may be available for the delegates and members at the time of the annual meeting.

J. W. LOVE, M.D., *Chairman*

To Study the Treatment of Alcoholism

The Special Committee to Study the Treatment of Alcoholism, appointed at the meeting of the Society, has completed its hearings and investigations and its findings and recommendations were published in the Virginia Medical Monthly and the Richmond News Leader.

M. M. PINCKNEY, M.D., *Chairman*

State Board of Nurse Examiners

The Committee to Confer with the State Board of Nurse Examiners appointed by Dr. James P. King, President of The Medical Society of Virginia, 1955-56, has, at the time of this writing, had no formal meetings and no request, either from physicians or nurses, to consult.

JAMES M. HABEL, JR., M.D., *Chairman*

ANDREW D. HART, M.D.

EUGENE L. LOWENBERG, M.D.

FRANK JOHNS, M.D.

JOHN E. GARDNER, M.D.

Cerebral Palsy

An endeavor has been made this year to obtain the locations of the various facilities for the treatment of cerebral palsy in the State of Virginia and to tabulate these in

easy reference form according to location, so that in the various parts of the state pediatricians and general practitioners not closely acquainted with the subject will be able to find the appropriate place to refer cerebral palsy patients.

From the survey of the state facilities it seems evident that we are doing a pretty good job of treating cerebral palsy in the relatively early age groups up to the age of sixteen. Beyond this age the Crippled Children's Bureau, on account of financial reasons, is limited in the amount of further care it can take of these patients.

It would seem that there are several phases of the program in which we should work to improve the care of these patients in Virginia as well as in other parts of the country:

1. A nursery school type of installation on the local level which could be largely run by volunteer non-technically trained personnel would be very helpful to teach these children the activities of daily living, such as they probably cannot get in the lower income group homes where there are other normal children requiring attention. This type of facility would also serve to socialize these children in the case of more financially fortunate home situations, but where at home they possibly get too much attention.

2. We should work toward the establishment of a monetary source where more of these children could be kept in the hospital on a domiciliary basis for more concentrated work on gait, activities of daily living, and what schooling they can absorb, et cetera.

We frequently hospitalize these patients for some surgical procedure but after insufficient time to re-educate them to the new conditions following surgery they return home and tend to regress again due to lack of transportation facilities, et cetera, to get them into the out-patient clinics for adequate follow-up care.

3. We need more funds to handle the teen age group beyond the age of sixteen.

4. We need facilities for sheltered workshop for a great many of these patients on a permanent basis.

5. We need to establish some sort of community or domiciliary facility for some of these patients on a permanent basis—otherwise, perforce, a lot of them must end up in mental institutions.

ALLEN M. FERRY, M.D., *Chairman*

DELEGATES TO 1956 MEETING

Where no name is listed it is indicative that no delegate or alternate was reported.

<i>Delegates</i>	<i>Alternates</i>
Accomack	
Dr. Walter Eskridge	Dr. James Kegley, Jr.
Albemarle	
Dr. Thomas S. Edwards	Dr. Charles Pearson
Dr. J. G. Bruce, Jr.	Dr. H. C. McCoy
Dr. Byrd Leavell	Dr. Julian Beckwith
Dr. H. L. Archer	Dr. A. M. Smith
Dr. J. R. Morris	Dr. Page Booker
Alexandria	
Dr. Charles V. Amole	Dr. John D. Hoyle
Dr. Ben C. Jones	Dr. John A. Sims
Alleghany-Bath	
Dr. Jeannette Jarman	Dr. S. P. Hileman
Dr. N. B. Jeter	Dr. L. A. Hquff
Amherst-Nelson	
Arlington	
Dr. J. R. B. Hutchison	Dr. Thomas A. McGavin
Dr. William D. Dolan	Dr. Lloyd B. Burk, Jr.
Dr. John T. Hazel	Dr. K. C. Latven
Augusta	
Dr. Edward Watkins	Dr. Glenn Campbell
Dr. Thos. G. Bell	Dr. Treacy O'Hanlan
Bedford	
Botetourt	
Buchanan-Dickenson	
Dr. J. C. Moore	Dr. J. S. Richardson
Dr. T. C. Sutherland	Dr. J. P. Sutherland
Charlotte	
Culpeper	
Danville-Pittsylvania	
Dr. J. J. Neal	Dr. D. L. Arey
Dr. S. C. Hall, Jr.	Dr. Francis McGovern
Fairfax	
Fauquier	
Dr. William R. Pretlow	Dr. James L. Dellinger
Floyd	
Fourth District	
Dr. J. L. Hamner	Dr. James T. O'Neal
Dr. Clyde G. O'Brien	
Dr. Earl M. Bane	Dr. William B. Bishop
Dr. H. W. Goode	Dr. Vincent Totin
Dr. R. B. Allison	Dr. John S. Prince
Dr. E. D. Baugh	Dr. K. S. Freeman
Dr. J. L. Northington	Dr. H. H. Braxton
Dr. A. Epes Harris	Dr. C. W. Scott
Dr. R. A. Moore, Jr.	
Dr. F. J. Wright, Jr.	Dr. C. C. Pearce, Jr.

<i>Delegates</i>	<i>Alternates</i>
Fredericksburg	
Dr. D. W. Scott	Dr. C. A. Nunnally
Dr. C. V. Cimmino	Dr. John Painter
Halifax	
Dr. C. B. Dixon	Dr. N. M. Ewell
Hampton	
Hanover	
Dr. E. S. Wysor	Dr. John Hamner
James River	
Dr. W. A. Pennington	Dr. A. C. Whitley
Dr. J. H. Yeatman	Dr. Garland Dyches
Lee	
Dr. G. B. Setzler	Dr. T. S. Ely
Loudoun	
Louisa	
Lynchburg	
Dr. Richard F. Hawkins	Dr. Carol Rice
Dr. John S. Morris, Jr.	Dr. Edward Calvert
Dr. B. Kyle Mundy	Dr. J. E. Warren
Mid-Tidewater	
Dr. Carl Broadus	Dr. R. D. Bowles
Dr. H. L. Shinn	Dr. C. T. Nydell
Dr. Thomas E. Smith	Dr. A. L. Van Name
Dr. T. L. Grove	
Dr. Joseph W. Chinn	Dr. A. W. Lewis, Jr.
Dr. Clarence Campbell	
Dr. M. H. Harris	
Dr. H. P. Bailey	
Dr. J. R. Parker	
Norfolk	
Dr. Mason C. Andrews	Dr. M. Kirwan King
Dr. Samuel M. McDaniel	Dr. K. K. Wallace
Dr. W. H. Whitmore, Sr.	Dr. John Alexander Cocke
Dr. Russell M. Cox	Dr. Marion S. Fitchett
Dr. Mallory S. Andrews	Dr. Marvin Herrington
Dr. W. Callier Salley	Dr. George P. Hand, Jr.
Dr. George Carr, Jr.	Dr. J. Franklin Waddill
Dr. Bernard Lidman	Dr. H. C. Meredith, Jr.
Northampton	
Dr. John Rogers Mapp	Dr. John R. Hamilton
Northern Neck	
Dr. Paul Pearson	Dr. Harold Sisson
Dr. Horace Kerr	Dr. Roper Travis
Dr. Norman Tingle	Dr. Melvin Lamberth, Jr.
Northern Virginia	
Orange	
Patrick-Henry	
Dr. W. N. Thompson	Dr. H. H. Price
Dr. W. D. Lewis	Dr. Claude Sherman
Dr. H. C. Foster, Jr.	

<i>Delegates</i>	<i>Alternates</i>	<i>Delegates</i>	<i>Alternates</i>
Princess Anne		Scott	
Dr. Ira L. Hancock	Dr. Robert Venner	Dr. W. L. Griggs, Jr.	Dr. G. C. Honeycutt
Richmond Academy		Southwestern Virginia	
Dr. W. L. Ball	Dr. Richard N. Baylor	Dr. Joseph H. Early	Dr. J. Glenn Cox
Dr. R. D. Butterworth	Dr. D. Coleman Booker	Dr. Virgil J. Cox	Dr. William V. Harrison
Dr. Elam C. Toone, Jr.	Dr. A. G. Brown, III	Dr. W. Fred Delp	Dr. Hugh B. Brown, Jr.
Dr. M. M. Pinckney	Dr. Albert M. Edmonds	Dr. Joseph J. Eller	Dr. C. Curtis Hatfield
Dr. J. Robert Massie, Jr.	Dr. William Hill	Dr. James M. Suter	Dr. Rector S. LeGarde
Dr. Thos. W. Murrell, Jr.	Dr. E. L. Kendig, Jr.	Dr. Wendell E. Malin	Dr. C. B. Hughes
Dr. William A. Johns	Dr. John P. Lynch	Dr. Seab A. Tuck	Dr. E. Lynwood Bagby
Dr. Donald S. Daniel	Dr. Virgil May	Dr. Andrew F. Giesen	Dr. Charles F. Manges
Dr. Guy W. Horsley	Dr. Carl Meador	Dr. George B. Kegley	Dr. Rufus Brittain
Dr. William R. Jordan	Dr. F. E. Oglesby		
Dr. Richard A. Michaux	Dr. Wellford C. Reed	Tazewell	
Dr. Kinloch Nelson	Dr. Leslie Rose	Dr. D. A. Cunningham	Dr. W. A. Cover
Dr. Adney K. Sutphin	Dr. Gilmore Tyler	Tri-County	
Dr. W. T. Thompson, Jr.	Dr. William Young	Dr. M. A. Michael	Dr. W. H. Chapman, Jr.
Roanoke Academy		Dr. J. W. Lambdin	Dr. T. A. Morgan
Dr. Charles Peterson		Dr. Hugh Warren	Dr. Ivan Steele
Dr. M. A. Johnson, III		Dr. Philip R. Thomas	Dr. A. McCray Jones
Dr. Harry B. Stone, Jr.		Warwick-Newport News	
Dr. William Kaufman		Dr. Russell Buxton	Dr. E. B. Mewborne
Dr. Alex. McCausland		Dr. W. A. Read	Dr. F. N. Thompson
Dr. Phillip C. Trout		Dr. E. V. Siegel	Dr. J. W. Carney
Rockbridge		Williamsburg-James City	
Rockingham		Dr. Carlton J. Casey	Dr. Joseph Barrett
Dr. N. M. Canter, Jr.	Dr. J. F. Wine	Wise	
Russell		Dr. T. J. Tudor	Dr. W. B. Barton

TECHNICAL EXHIBITS

Technical Exhibits will be in the Shenandoah Room and Foyer of the Hotel Roanoke. The following is a list of these exhibits with a brief description:

Booth No. 1
Schering Corporation
Bloomfield, New Jersey

A cordial invitation is extended to the members to visit the Schering exhibit. The exhibit will feature METI-CORTEN and METICORTEONE, the new Corticosteroids for the treatment of rheumatoid arthritis, intractable asthma and other so-called collagen diseases. Extensive clinical and laboratory data demonstrating certain advantages of these new steroids over cortisone and hydrocortisone are shown.

Booth No. 2
Abbott Laboratories
North Chicago, Illinois

Booth No. 3
Lederle Laboratories Division
American Cyanamid Company
New York, New York

Booth No. 4
Eli Lilly and Company
Indianapolis, Indiana

You are cordially invited to visit the Lilly exhibit. The display will contain information on recent therapeutic developments. Lilly sales people will be in attendance. They welcome your questions about Lilly products.

Booth No. 5
G. D. Searle & Company
Chicago, Illinois

You are cordially invited to visit the Searle booth where our representatives will be happy to answer any questions regarding Searle Products of Research.

Featured will be Nilevar, the new anabolic agent; Mictine, the new safe, non-mercurial oral diuretic; Vallestiril, the new synthetic estrogen with extremely low incidence of side reactions; Banthine and Pro-Banthine, the standards in anti-cholinergic therapy; and Dramamine, for the prevention and treatment of motion sickness and other nausea.

Booth No. 6
Ciba Pharmaceutical Products, Incorporated
Summit, New Jersey

Booth No. 7
Mead Johnson & Company
Evansville, Indiana

Featured in the Mead Johnson & Company booth will be Colace, new non-laxative stool softener, and Olac, infant formula in liquid and powdered forms.

COLACE (diethyl sodium sulfosuccinate, Mead) is a new Mead specialty for patients of all ages. Colace softens stools for easy passage—without laxative action; without adding bulk. A surface-active agent, Colace permits the intestinal water to mix better with fecal material. Colace is widely used both to prevent and to treat constipation.

OLAC, Liquid—newest member of the Mead family of balance infant formulas for routine use. Exceptionally generous in milk protein to promote sturdy growth; supplies fat as a highly refined vegetable oil; contains Dextri-Maltose for caloric adequacy and space carbohydrate absorption.

Booth No. 8
Ross Laboratories
Columbus, Ohio

Current concepts in infant feeding stress the critical aspects of preventive care. Visit our booth at your convenience; your Similac Representative will be happy to discuss the physiologic role of Similac Powder and Similac Liquid in providing good growth, sound development, and optimum clinical benefits. Reprints of current pediatric investigations and the latest Ross Research Conference Reports are available.

Booth No. 9
Davies, Rose & Company, Limited
Boston, Massachusetts

We cordially invite the members of The Medical Society of Virginia to visit our booth.

Although most physicians need no introduction to our outstanding cardiac therapies, Pil. Digitalis and Tablets Quinidine Sulfate, Natural, our representative, Mr. Frederick L. Moulton, will be on hand to greet you and to explain the dependability of our laboratory productions.

Booth No. 10
U. S. Vitamin Corporation
New York, New York

Exhibit features C.V.P., an exclusive water-soluble citrus bioflavonoid compound with ascorbic acid . . . for restoring and maintaining capillary integrity. Corrects or minimizes capillary abnormality and bleeding associated with diabetes, hypertension, epistaxis, purpura, gingivitis and certain forms of gastro-intestinal, rectal and vaginal bleeding. Effective therapy in habitual and threatened abortion. Used experimentally against the "common cold" and other virus infections.

Professional samples and literature distributed also on our complete line of nutritional and pharmaceutical specialties.

Booth No. 11
A. S. Aloe Company
Washington, D. C.

Booth No. 12
The Baker Laboratories, Incorporated
Cleveland, Ohio

You are invited to visit our booth where Baker's Modified Milk and Varamel, two successful products for infant feeding, are on display.

Baker representatives will be glad to discuss the practical application of Grade A milk, adjusted fat composition, zero curd tension, synthetic vitamins and other important factors which help to eliminate many of the problems in modern infant feeding.

Booth No. 13
W. B. Saunders Company
Philadelphia, Pennsylvania

Booth No. 14
The Borden Company
New York, New York

There's no better place to talk over your infant feeding problems than the Borden Prescription Products booth. On display will be the complete line of Borden infant formula products for every feeding purpose or preference. If you're encountering hyperirritability or excoriation, you'll be interested in BREMIL, a formula patterned upon breast milk. If you suspect milk allergy in patients young or old, you'll find the answer in either Liquid or Powdered MULL-SOY, leading hypoallergenic food. For protein, DRYCO provides an ideal, flexible formula base. And don't forget BETA-LACTOSE, the ideal milk sugar.

Booth No. 15
J. B. Roerig and Company
Chicago, Illinois

Booth No. 16
Wm. P. Poythress & Company, Incorporated
Richmond, Virginia

Booth No. 17
Doho Chemical Corporation
New York, New York

Doho Chemical Corporation is pleased to exhibit:

AURALGAN, ear medication in Otitis Media and removal of Cerumen.

OTOSMOSAN, effective non-toxic Fungicidal and Bactericidal (gram negative-gram positive) in the suppurative and aural dermatomycotic ears.

RHINALGAN, nasal decongestant free from systemic or circulatory effect and equally safe to use on infants as well as the aged.

NEW LARYLGAN, sooth throat spray and gargle for infectious and non-infectious sore throat involvements.

Mallon Chemical Corporation, Subsidiary of the Doho Chemical Corporation, is also featuring:

RECTALGAN, liquid topical anesthesia, for relief of

pain and discomfiture in hemorrhoids, pruritus and perineal suturing.

DERMOPLAST, aerosol freon propellant spray for fast relief of surface pain, itching, burns, and abrasions. Also obstetrical and gynecological use.

Booth No. 18
Bilhuber-Knoll Corporation
Orange, New Jersey

PARACODIN is a powerful analgesic yet essentially free from side effects such as respiratory depression, nausea and dizziness. Paracodin is indicated in acute and chronic pain.

Our representatives cordially invite the members and guests of The Medical Society of Virginia to visit the Bilhuber-Knoll exhibit to discuss Paracodin as well as the anti-asthmatic QUADRINAL, BROMURAL, DILAUDID, METRAZOL, THEOCALCIN, TENSODIN and the other preparations of our manufacture. The results of recent clinical investigations concerning these preparations will be available for your review.

Booth No. 19
Meridian Electronics, Incorporated
Richmond, Virginia

Inter-office telephone communication systems. Office and home music systems. Voice intercommunication systems.

Booths No. 20 and 21
The Coca-Cola Company
Atlanta, Georgia

Ice-cold Coca-Cola served through the courtesy and cooperation of the Roanoke Coca-Cola Bottling Works, Incorporated, and The Coca-Cola Company.

Booth No. 22
Powers and Anderson, Incorporated
Richmond, Virginia

Powers and Anderson will exhibit many new items of interest to the physicians of The Medical Society of Virginia. Be sure to drop by our booth where these items will be shown by Robert E. Anderson, Jr., H. C. Haun, Jolly Messer and Russ Venable.

Booth No. 23
A. H. Robins Company, Incorporated
Richmond, Virginia

The A. H. Robins Company Exhibit is introducing Donnagesic Extentabs, the first extended action codeine tablets, proving 10-12 hour relief of pain on a single dose. Also shown are Ambar Tablets and Extentabs—indicated in control of obesity and elevation of mood; and for peptic ulcer, Robalate—effective antacid now available in palatable, free-flowing liquid form as well as in tablets—and Donnalate—which combines Robalate and the Donnatal formula.

Booth No. 24
R. J. Reynolds Tobacco Company
Winston-Salem, North Carolina

Welcome to the R. J. Reynolds Tobacco Company exhibit! You are cordially invited to receive a cigarette case (monogrammed with your initials) containing your choice of CAMEL, CAVALIER King Size, or WINSTON, the distinctive new king size filter cigarette.

Booth No. 25
The Stuart Company
Chicago, Illinois

Booth No. 26
Walker Laboratories, Incorporated
Mount Vernon, New York

PRECALCIN, PRECALCIN LACTATE, BACIMYCIN OINTMENT, ADCETS, CORTISPRAY, PINCETS and HEDULIN will be displayed at the exhibit. PRECALCIN LACTATE is the phosphorus-free comprehensive multi-vitamin-mineral formula with "built-in" antianemia factors for use during pregnancy. HEDULIN is the substantially safe oral anticoagulant described in recent papers and complete reprint portfolios will be available to all registered physicians.

Booth No. 27
The Wm. S. Merrell Company
Cincinnati, Ohio

Merrell representatives will be on hand to discuss TACE, a new distinctive estrogen and Meratran, a new unique antidepressant.

Please stop at our booth, they will be happy to talk with you.

Booth No. 28
McLain Surgical Supply of Virginia, Incorporated
Charlottesville, Virginia

Featuring the new Birtcher Ultrasonic and Electro-Physical and Electro-Surgical Equipment. The new Tycos Sphygmomanometer, Welch Allyn and National Diagnostic Instruments and physician's Office Cytology Smear Kit, laboratory testing essentials with the new C-Reactive Protein Test highlighted. Pelton-autoclaves also on display.

Booth No. 29
Zimmer-Baxter Associates
Charlotte, North Carolina

For the past 18 years it has been our pleasure to exhibit at The Medical Society of Virginia annual meeting. Again we extend a cordial invitation to visit the Zimmer Booth to inspect the latest developments in equipment for the treatment of orthopedic and fracture surgery.

Booth No. 30
Smith, Kline and French Laboratories
Philadelphia, Pennsylvania

Booth No. 31
VanPelt & Brown, Incorporated
Richmond, Virginia

VanPelt and Brown extend a cordial invitation to visit their exhibit where representatives will be happy to answer questions and supply clinical samples of their products.

Booth No. 32
E. R. Squibb and Sons
New York, New York

Booth No. 33
Winthrop Laboratories
New York, New York

Reserpine (0.15 mg.) with Mebaral (30 mg.) tablets, new more effective sedative, tranquilizer and antihypertensive which produces immediate and sustained tranquility through two sites of central nervous system action—cortical and hypothalamic.

Booth No. 34
Ayerst Laboratories
New York, New York

Physicians are invited to visit Booth No. 34 where Ayerst representatives will be on hand to welcome them and discuss any Ayerst specialties of interest to them.

Booth No. 35
Sandoz Pharmaceuticals
Hanover, New Jersey

Booth No. 36
Ortho Pharmaceutical Corporation
Raritan, New Jersey

ORTHO cordially invites you to booth 36 where the well-known line of obstetrical and gynecological pharmaceuticals will be on display. Particular emphasis will be placed on Ortho preparations for conception control. Ortho representatives will be on hand to offer pertinent information on their products.

Booth No. 37
Richmond Surgical Supply Company
Richmond, Virginia

Richmond Surgical Supply Company, Roanoke Surgical Supply Company, and Seaboard Surgical Supply Company will exhibit the new Libel-Flarsheim Self-Calculating Basal Meter which has greatly simplified Basal Metabolism tests and eliminates human error in calculation.

Booth No. 38
Tablerock Laboratories, Incorporated
Greenville, South Carolina

Booth No. 39
Physicians Products Company
Petersburg, Virginia

Booth No. 40
National Drug Company
Philadelphia, Pennsylvania

Booth No. 41
Burroughs Wellcome & Company (U.S.A.) Inc.
Tuckahoe, New York

The extensive research facilities of "B. W. & Co." both here and in other countries, are directed to the development of improved therapeutic agents and techniques.

Through such research "B. W. & Co." has made notable advances related to leukemia, malaria, diabetes, and diseases of the autonomic nervous system; and to antibiotic, muscle-relaxant, antihistaminic, and antinauseant drugs.

An informed staff at our booth will welcome the opportunity to discuss our products and latest developments with you.

Booth No. 42
Pet Milk Company
St. Louis, Missouri

We will be pleased to have you stop and discuss the variety of time-saving material available to busy physicians. Our representatives will be on hand to discuss the merits of "Pet" Evaporated Milk for infant feeding and INSTANT "Pet" nonfat Dry Milk for special diets. A miniature "Pet" Evaporated Milk can will be given to all visitors.

Booth No. 43
Charles C. Haskell & Company, Incorporated
Richmond, Virginia

Representatives will be present to welcome visiting physicians and to answer any inquiries regarding our ethical prescription specialties, such as our BELBARB family (sedative-spasmodic), HASAMAL — HASACODE (analgesic), SILMIDATE — SILMIDATE-M (anti-arthritis), PANTABEEROID (thyroid therapy), and other rational therapeutic combinations.

Booth No. 44
Ames Company, Incorporated
Elkhart, Indiana

MY-B-DEN (muscle adenylic acid) is adenosine-5-monophosphate, one of the adenosine nucleotides involved in high energy phosphorylation reactions. The

systemic administration of MY-B-DEN produces complete relief of pain and disability in most patients with bursitis. MY-B-DEN gives dramatic results in acute, subacute, and chronic subdeltoid bursitis, calcific and non-calcific.

DECHOLIN—The routine use of this product in geriatric patients has proved most beneficial. Common geriatric problems of constipation, inadequate fat digestion and improper liver function are easily overcome.

Booth No. 45
The J. D. Pharmacial Company, Incorporated
Richmond, Virginia

Booth No. 46
Julius Schmid, Incorporated
New York, New York

An interesting and informative exhibit featuring RAMSES Flexible Cushioned Diaphragm; RAMSES Vaginal Jelly; VAGISEC Jelly and Liquid, two new products embodying "carlendacide", the recent development of Carl Henry Davis, M. D., and G. G. Grand for vaginal trichomoniasis therapy; and XXXX (FOUREX) Skin Condoms, RAMSES and SHEIK Rubber Condoms for the control of trichomonal re-infection.

Booth No. 47
C. B. Fleet Company
Lynchburg, Virginia

During the past fifty years PHOSPHO-SODA (FLEET) has been a symbol of elegance in sodium phosphate medication. FLEET ENEMA DISPOSABLE UNIT—an enema solution of Phospho-Soda (Fleet)—is a worthy companion product. The single-use unit simplifies and assures satisfying preparation for proctoscopy and as a routine enema it is a boon to the hospitalized patient.

Booth No. 48
Peoples Drug Stores, Incorporated
Washington, D. C.

Peoples Drug Stores, Incorporated, are deeply grateful to the physicians of Virginia for their continued cooperation and support. The members of The Medical Society of Virginia, in attendance at the annual meeting in Roanoke, are cordially invited to visit our booth. Representatives of our company will be on hand to greet you and furnish information concerning the professional services offered to physicians.

Current Currents

A WORD TO THE WISE, so it is said, is sufficient. Your Program Committee urges that you not miss the Monday Evening General Session of the Annual Meeting, to be held in the Ballroom of Hotel Roanoke.

The session is always interesting, but this year a special treat awaits you. Mr. Henry Viscardi, Jr., President, Abilities, Inc., West Hempstead, New York, has a story to tell that will tug at your very heart strings, and his color slides will long be remembered. Your Committee says that "seeing is believing"—come and see for yourself.

HEALTH INSURANCE COVERAGE has reached an all-time high in the United States. According to the Health Insurance Council, benefit payments designed to help people pay hospital and doctor bills are running 20 per cent higher this year than last. As of July 31, 1956, the Council estimates that some 110 million persons were covered by hospital insurance; 94 million had surgical protection; 58 million had regular medical expense coverage, and seven million were insured against major hospital and medical expenses.

The Committee on Prepayment Medical and Hospital Service of the AMA's Council on Medical Service contributes information on various programs sponsored or approved by medical societies. The entire survey brings together Blue Shield figures reported by medical society plans as well as figures of independent plans, Blue Cross and plans underwritten by insurance companies. The survey found that the number of persons insured against hospital expenses increased by 6.1 per cent; surgical insurance up to 7 per cent; regular medical expense insurance gained 17.5 per cent; major hospital and medical expense insurance increased 134.5 per cent.

SELECTIVE SERVICE HEADQUARTERS has asked its state directors to review the files of all physicians in residency programs who have not requested deferment under the military or Public Health Service residency training program. Selective Service declares:

"It has been noted that some physicians who have completed internships and are in residency training but who are not in a residency training program of the armed forces or the Public Health Service have been given occupational deferments. It also has come to the attention of this headquarters that many young physicians who have completed internships are not applying for commissions or for acceptance in such residency training programs on the theory that their local boards either will defer them or not process them for induction."

All three military services have programs under which a physician who is subject to the regular draft may apply for deferment to take a residency provided he selects a specialty of value to the armed services and promises to take a reserve commission. He must serve on active duty for at least two years.

READ THE COMMITTEE REPORTS PUBLISHED IN THIS ISSUE

MEDICAL CARE PROGRAM for dependents of service personnel is moving ahead, and will go into effect December 8. The Department of Defense has completed work on a directive to the services, decided to allocate the hospital care contracts on a regional basis, and is planning to invite state medical society representatives to Washington to work out state by state arrangements for the medical care part of the operation. This program, and its implications, can have far-reaching effects, and every physician should acquaint himself with the details. Developments, as of this date, are offered for your information:

1. Representatives of state medical societies will be invited to Washington in the near future to assist the Department of Defense in working out individual contracts covering medical care of service dependents in each state.
2. Prior to meeting with state medical society representatives, the Defense Department task force hopes to work out a model state contract.
3. By the end of September, all state societies are expected to have agreed on basic details of the kind of medical care program they are prepared to operate. They will also have decided on their disbursing agents and will be well along in their efforts to develop acceptable fee schedules.
4. The Department of Defense has decided to divide up the hospital care phase of the program (distinct from medical care) on a regional basis, with probably four of the six Army Areas made the responsibility of Blue Cross and the remaining two the responsibility of commercial insurance companies.
5. The Secretary of Defense has issued a directive embodying the department's concept of the law and general instructions on how the services will implement the law. The directive indicates what kind of care is to be provided in military and civilian facilities, under what circumstances, how dependents will be identified, types of outpatient care to be provided in military and civilian facilities, etc.
6. After a few more details have been settled, the Defense Department, in cooperation with the Department of Health, Education, and Welfare, will issue regulations covering all aspects of the program. This will provide the final and official guide for contract negotiations.

QUOTE OF THE MONTH comes from Thurman Sensing, Southern States Industrial Council. He says "A man can possess no more valuable right than the right to vote. It is the one way in which every man can have a voice in his government. It is a responsibility and a duty that no free man can shirk if he wants to remain free."

HATS OFF AGAIN to the Lynchburg Academy of Medicine, which was represented at the AMA Public Relations Institute in Chicago by Dr. John Wyatt Davis, Jr. and Dr. William H. Barney. The Arlington County Medical Society was represented by Dr. Harry C. Bates, Jr., Chairman of the Public Relations Committee of The Medical Society of Virginia.

CONTRIBUTE TO THE AMERICAN MEDICAL EDUCATION FOUNDATION

COUNCIL MINUTES

The meeting of Council of The Medical Society of Virginia was called to order by Dr. James P. King, President, at 1:00 p.m. on August 23, 1956, at Society Headquarters, Richmond. A quorum was announced. Attending were Dr. Mack I. Shanholtz, Dr. Harry J. Warthen, Jr., Dr. James D. Hagood, Dr. John P. Lynch, Dr. A. A. Creecy, Dr. Walter P. Adams, Dr. Benjamin W. Rawles, Jr., Dr. Wilkins J. Ozlin, Dr. Louis P. Bailey, Dr. Frank A. Farmer, Dr. Harold W. Miller, Dr. James P. Williams, and Dr. Harry C. Bates, Jr. Also present were Dr. John T. Hazel, Chairman of the Committee on Federal Medical Services, Dr. Paul D. Camp, member of the Committee on Federal Medical Services, Dr. Lee E. Sutton, Jr., Chairman of the Polio Committee and Mr. Robert C. Duval, attorney for the Society.

Considered first was a report by the Committee on Fiscal Policy which was presented by Dr. Guy W. Horsley, Chairman. The report mentioned that the Society, over a period of years, had been fortunate to accumulate a modest surplus, and there was some question concerning its proper disposition. A number of suggestions had been received, and these included a new headquarters, a sizable contribution to the American Medical Education Foundation, scholarships for worthy students and a reduction in membership dues. The Committee, after carefully considering all suggestions, recommended that the Society construct a new and functional Headquarters Building at a cost not to exceed \$120,000.

There was considerable discussion of the Committee report and it was brought out that a building would probably be of more practical value to the membership than any of the other suggestions. There was some feeling that a building, or a building fund, would serve to protect the Society's status as a non-profit, and therefore tax exempt, organization.

Dr. Rawles stated that his Committee on Society Headquarters Improvement had considered the possibility of altering the present headquarters in order to make it more functional. The cost, as established by a reputable architect, would run between twenty and thirty thousand dollars, depending upon the amount of work done to the basement. It was mentioned that even this would not solve such basic problems as poor parking facilities, decreasing property value, lack of meeting space, etc. It was then moved that Council recommend to the House of Delegates that the Society proceed with plans to erect a new Headquarters Building in Richmond. The motion was seconded and adopted.

A Polio Committee report was then presented by Dr. Sutton, who believed that some action should be taken to further the Salk vaccine program in Virginia. It was brought out that some state medical societies, notably North Carolina, had volunteered to make free vaccine available during a six weeks' period, and results had been quite encouraging. There was some thought, however, that The Medical Society of Virginia should not

attempt to force physicians to give free shots.

Dr. Shanholtz was of the opinion that the Society should take the lead in stimulating the public to take advantage of the vaccine now available to all. He stated that the State Health Department would work with the Society in every possible way.

It was then moved that the Society urge Virginians to take advantage of the Salk polio vaccine, recommending that inoculations be commenced this fall in order that maximum protection might be realized before the 1957 polio season arrives. The motion carried.

It was then decided that component societies should be advised of Council's action and every effort made to enlist the aid of member physicians in bringing about better utilization of the vaccine.

Dr. Hazel was then requested to report on Public Law 569 as it pertains to medical care of dependents of service personnel. Dr. Hazel had just returned from meetings in Chicago and Atlanta on the subject, and he stated that the law possessed far reaching implications. He made it clear that the medical profession should exercise the closest possible supervision over the program.

He reported that the law would affect approximately forty per cent of service dependents and that obstetrical cases would probably constitute a major part of the work load. It was explained that the Department of the Army would negotiate with the Society concerning a Virginia fee schedule and that some agency should be recommended to handle disbursements.

Dr. Hazel stated that the Society must make two decisions. They are (1) does The Medical Society of Virginia approve this plan for medical care of service dependents, and (2) who does The Medical Society of Virginia recommend as contracting or fiscal agent?

Three possibilities were mentioned in connection with the latter question. They were (1) The Medical Society of Virginia, (2) Blue Shield, and (3) Private Insurance Industry.

A motion was then introduced which would have The Medical Society of Virginia cooperate with the Department of Defense in implementing P. L. 569 as it pertains to medical care of service dependents. The motion carried.

It was then moved that Council vote on whether Blue Shield or the Society should be recommended as contracting agent at the program's outset. Blue Shield was chosen by a six to five vote.

After further discussion, it was the consensus that Council should point out that while it is opposed in principle to the act and its socialistic implications, it will cooperate since the act is now a law of the land. The recommendations of Council will be brought before the House of Delegates on October 14.

Council then decided to consider the remainder of the agenda during its meeting on October 14 and voted to adjourn.

ROBERT I. HOWARD, *Secretary*

Presidents of The Medical Society of Virginia

PRESIDENT	YEAR OF MEETING
*Dr. James McClurg, Richmond	1821
*Dr. William Foushee, Richmond	1822
*Dr. William Foushee, Richmond	1823
*Dr. James Henderson, Richmond	1824
Meetings Discontinued.	
*Dr. Robert William Haxall, Richmond	1841
*Dr. Robert William Haxall, Richmond	1842
*Dr. Frederick Marx, Richmond	1843
*Dr. Thomas Nelson, Richmond	1844
*Dr. William A. Patteson, Richmond	1845
*Dr. William A. Patteson, Richmond	1846
*Dr. John A. Cunningham, Richmond	1847
*Dr. William A. Patteson, Richmond	1848
	1849
*Dr. Robert William Haxall, Richmond	1850
*Dr. Beverley R. Wellford, Fredericksburg	1851
*Dr. James Beale, Richmond	1852
*Dr. Thomas P. Atkinson, Danville	1853
*Dr. Carter P. Johnson, Richmond	1854
*Dr. H. C. Worsham, Dinwiddie	1855
*Dr. H. C. Worsham, Dinwiddie	1856
*Dr. James Bolton, Richmond	1857
*Dr. Levin S. Joynes, Richmond	1858
Meetings Discontinued	
*Dr. R. S. Payne, Lynchburg	1870
*Dr. R. S. Payne, Lynchburg	1871
*Dr. A. M. Fauntleroy, Staunton	1872
*Dr. Harvey Black, Blacksburg	1873
*Dr. A. G. Tebault, London Bridge	1874
*Dr. S. C. Gleaves, Wytheville	1875
*Dr. F. D. Cunningham, Richmond	1876
*Dr. J. L. Cabell, University	1877
*Dr. J. H. Claiborne, Petersburg	1878
*Dr. L. S. Joynes, Richmond	1879
*Dr. Henry Latham, Lynchburg	1880
*Dr. Hunter McGuire, Richmond	1881
*Dr. G. W. Semple, Hampton	1882
*Dr. W. D. Cooper, Morrisville	1883
*Dr. J. E. Chancellor, Charlottesville	1884
*Dr. S. K. Jackson, Norfolk	1885
*Dr. Rawley W. Martin, Chatham	1886
*Dr. Bedford Brown, Alexandria	1887
*Dr. Benjamin Blackford, Lynchburg	1888
*Dr. E. W. Row, Orange C. H.	1889
*Dr. Oscar Wiley, Salem	1890
*Dr. W. W. Parker, Richmond	1891
*Dr. H. Grey Latham, Lynchburg	1892
*Dr. Herbert M. Nash, Norfolk	1893
*Dr. Wm. P. McGuire, Winchester	1894
*Dr. Robt. J. Preston, Abingdon	1895
*Dr. Wm. L. Robinson, Danville	1896
*Dr. Geo. Ben Johnston, Richmond	1897
*Dr. Lewis E. Harvie, Danville	1898
*Dr. Jacob Michaux, Richmond	1899
*Dr. Hugh T. Nelson, Charlottesville	1900
*Dr. J. R. Gildersleeve, Tazewell	1901
*Dr. R. S. Martin, Stuart	1902

PRESIDENT	YEAR OF MEETING
*Dr. J. N. Upshur, Richmond	1903
*Dr. Joseph A. Gale, Roanoke	1904
*Dr. Wm. S. Christian, Urbanna	1905
*Dr. Lomax Gwathmey, Norfolk	1906
*Dr. Paul B. Barringer, Charlottesville	1907
*Dr. Wm. F. Drewry, Petersburg	1908
*Dr. Stuart McGuire, Richmond	1909
*Dr. E. T. Brady, Abingdon	1910
*Dr. O. C. Wright, Jarratt	1911
*Dr. Hugh M. Taylor, Richmond	1912
*Dr. Southgate Leigh, Norfolk	1913
*Dr. Stephen Harnsberger, Catlett	1914
*Dr. Samuel Lile, Lynchburg	1915
*Dr. Joseph A. White, Richmond	1916
*Dr. Geo. A. Stover, South Boston	1917
*Dr. Ennion G. Williams, Richmond	1918†
*Dr. Ennion G. Williams, Richmond	1919
*Dr. Paulus A. Irving, Farmville	1920
*Dr. Alfred L. Gray, Richmond	1921
*Dr. E. C. S. Taliaferro, Norfolk	1922
*Dr. John Staige Davis, University	1923
*Dr. W. W. Chaffin, Pulaski	1924
*Dr. Hunter H. McGuire, Winchester	1925
Dr. W. L. Harris, Norfolk	1926
*Dr. J. Shelton Horsley, Richmond	1927
*Dr. J. W. Preston, Roanoke	1928
*Dr. J. Bolling Jones, Petersburg	1929
*Dr. Charles R. Grandy, Norfolk	1930
*Dr. J. Allison Hodges, Richmond	1931
*Dr. I. C. Harrison, Danville	1932
*Dr. J. C. Flippin, University	1933
*Dr. R. D. Bates, Newtown	1934
*Dr. F. H. Smith, Abingdon	1935
*Dr. P. St. L. Moncure, Norfolk	1936
Dr. J. M. Hutcheson, Richmond	1937
*Dr. G. F. Simpson, Purcellville	1938
Dr. A. F. Robertson, Jr., Staunton	1939
*Dr. H. H. Trout, Roanoke	1940
Dr. W. B. Martin, Norfolk	1941
*Dr. Roshier W. Miller, Richmond	1942
Dr. J. M. Emmett, Clifton Forge	1943
*Dr. C. B. Bowyer, Stonega	1944
Dr. H. B. Mulholland, Charlottesville	1945
*Dr. Julian L. Rawls, Norfolk	1946
*Dr. W. L. Powell, Roanoke	1947
Dr. Guy R. Fisher, Staunton	1948
*Dr. M. Pierce Rucker, Richmond	1949
Dr. W. C. Caudill, Pearisburg	1950
Dr. C. Lydon Harrell, Norfolk	1951
Dr. John T. T. Hundley, Lynchburg	1952
Dr. James L. Hamner, Mannboro	1953
Dr. V. W. Archer, Charlottesville	1954
Dr. Carrington Williams, Richmond	1955
Dr. James P. King, Radford	1956

*Deceased.

†Owing to influenza epidemic during World War I, the council met in 1918, and Dr. Williams was continued as President.

Response to Questionnaire

I APPRECIATE the splendid response to the "President's Questionnaire" of August 8th and believe you will be interested in the following summary. It is unfortunate that space does not permit us to print the many constructive comments and suggestions which accompanied these answers.

Total Answers Received--619

1. Should the Society sponsor a group life insurance plan?
Yes—398 No—197 No answer— 24
2. Should we seek to increase the benefits under our sickness and accident plan?
Yes—356 No—125 No answer—138
3. Should there be a special assessment for AMEF?
Yes— 99 No—404 No answer—116
4. Should Society be more active in Blue Cross-Blue Shield affairs?
Yes—475 No— 95 No answer— 49
5. What is best way of utilizing any surplus that may accumulate in treasury?

Don't know or no answer	197
Scholarships	111
Reduce dues	89
New building	79
AMEF	69
Investments	29
Speakers and meetings	25
Public relations	22
Accumulate	19
Increase member benefits	14
The Monthly	2
Charity	3
Research	3
Committee expenses	2
Virginia Council on Health and Medical Care	1
Investigate Blue Cross—Blue Shield	1
6. Should we consider erection of a modern and serviceable headquarters?
Yes—341 No—181 No answer— 97
7. Should Society set up medical scholarships for worthy students?
Yes—407 No—154 No answer— 58
8. Do you approve present fee schedule of our Veterans Medical Care Program?
Yes—169 No—124 No answer—326
9. Should we sponsor public relations courses in our medical schools?
Yes—448 No— 95 No answer— 76

10. How can we improve our Annual Meeting?
90% left blank. Answers all different.
11. Do you believe cruise conventions advisable?
Yes—227 No—313 No answer— 79
12. Should Society be more active in Civil Defense?
Yes—360 No—131 No answer—128
13. Do you like "Current Currents"?
Yes—527 No— 24 No answer— 68
- Should it be continued as insert in Monthly or sent separately in news form?
Insert—263 Separate—141 No answer—215
14. Do you like the changes made in Virginia Medical Monthly?
Yes—484 No— 6 No answer—129
- How may it be further improved?
90% blank. Answers all different.


President

Let's Reminisce!

The report of the Committee on the Effect of the Use of the Sewing Machine upon the Health of Women, read before The Medical Society of Virginia in November, 1872, concluded "That fatigue is not disease and that there is no reason to conclude that the use of the muscles employed in machine work for a reasonable time is injurious. That the machine may be used for four or five hours daily in a family by a lady in ordinary health without injury. That the damage to health in the factory is due to the hygienic condition (bad air, etc.) under which the work is done, and the natural delicacy of some of the operatives, unfitting them for long-continued labor of any kind. That the sewing machine is a great boon to womankind, increasing her compensation, protecting her sight, and, in the family lessening her labors."

It was estimated it would take one hour, 16 minutes, to make a gentleman's shirt by machine and fourteen hours, 26 minutes, by hand; a calico dress fifty-seven minutes by machine and six hours, 37 minutes by machine. Eight women with the machine will do as much work as sixty-three women who sew altogether by hand.

It was felt "if the 'walking treadle' were generally introduced, it is not at all improbably that the work on the machine, for three or four hours a day, might be of *positive advantage* to many of our ladies who need exercise. The motion in this case so nearly resembles walking that health stimulus would result to the circulation in the lower extremities, and also to some extent in the pelvic organs."

The Fluoridation Hassle

THE RECENT action of the Blackstone Town Council in voting to stop the fluoridation of water in this community highlights a strange state of mind which is not peculiar to Virginia.

Fluoridation is not new. Evidence which has accumulated for more than a quarter of a century indicates that dental caries is diminished materially when fluorides are present in the drinking water in the proportion of one part per million. Fluoridation is approved by the American Dental Association, the American Medical Association and the United States Public Health Service. Despite this impressive array of sponsors there is a small but voluble group of critics who appear to carry weight with the city fathers, who unfortunately make the decision in these matters, out of all proportion to their number or knowledge.

A lack of knowledge on the subject appears to act not as a deterrent but rather as a challenge to some of those most vehement in opposing this method of lessening tooth troubles on the part of the general population.

The Illinois Chiropractic Society is "unalterably opposed to the addition of poisonous fluoride compounds to public drinking water." This is a curious statement from an organization that emphasizes the role of the spinal nerves to the virtual exclusion of chemistry and the other more orthodox methods in the treatment of human ailments. Dr. James L. Doenges, President of the Association of American Physicians and Surgeons, is quoted in a recent editorial in the Richmond News Leader as stating that this organization opposes "compulsory mass medication". A diligent search of the more than 200 national medical organizations listed in the 1956 American Medical Directory failed to locate the name of this association. No doubt such an organization exists but no evidence is available to indicate that it is qualified to pass judgment on fluoridation.

Whenever objections to fluoridation are raised the name of Dr. Frederick B. Exner, a practicing roentgenologist of Seattle, is invoked. From information available it would not seem that Dr. Exner's training would justify the belief that he is qualified to speak as an expert on this subject. He is a board certified roentgenologist who, in the twenty-nine years since his graduation from the University of Minnesota, has published nine articles that can be located readily. Seven of these appeared in "Northwest Medicine". Three of these have titles indicating that they deal with roentgenological topics. Three discuss fluoridation and the remaining three are entitled, "Health Department, Good Servant but Bad Master", "Physician Patient Relationship" and "The Catch in Sickness Insurance".

Dr. Exner appears to be dissatisfied with some aspects of the world about him but there is nothing to indicate that he has found the answers, especially in terms of fluoridation. Despite this unimpressive background, he has been the chief medical authority quoted by critics of fluoridation in a study made by the New York City government several months ago and more recently in a series of editorials in the Richmond News Leader.

It is difficult to understand how such meager support can justify thinking persons in opposing a health measure which has the backing of the three national organizations most directly concerned with the problem. One factor unquestionably is the

human tendency to put more weight on an adverse evaluation than a favorable one. This is true especially in matters concerning health. One word of caution outweighs many words of recommendation.

A second consideration is the high index of suspicion on the part of some laymen that any general health measure recommended by the medical or allied professions must in some mysterious fashion work to the advantage of the recommending body. They find it difficult to believe that a physician or dentist would recommend something that would lessen his practice and therefore reduce his income.

Another variation of this skepticism is the doubting Thomas whose disbelief increases in direct proportion to the weight of the arguments advanced in support of the other side of a point in question. An example of this is the oft repeated story that John Wilkes Booth was not shot by Boston Corbett in a barn near Port Royal but in some manner escaped and lived out a long and useful life in Texas. In the same way Marshall Ney outwitted a firing squad in France and died of natural causes in North Carolina many years later.

A final argument sometimes advanced in opposing fluoridation is that adding this drug to the water supply infringes on individual rights and somehow smacks of state medicine or the overzealous welfare state. It is strange indeed that chlorination of water is accepted without comment whereas addition of a fellow halogen-fluorine is a reprehensible act. What a difference a few consonants make!

Fluoridation is not necessarily the ultimate answer, but in our present state of knowledge and until a better method is discovered, it appears to be the logical approach to the prevention of tooth decay.

H.J.W.

Public Law 569

Public Law 569, which recently was passed by Congress provides civilian medical care for dependents of service personnel. The Department of Defense has decided after consultation with the American Medical Association to have the various state medical societies assist in setting up this program. The state societies will be asked to develop a realistic fee schedule and also to recommend a contracting agent within each state. This agent will receive statements from participating doctors and disburse the payments to these physicians.

Three courses are open to The Medical Society of Virginia. The Society may recommend that the Blue Shield, or private insurance companies, or the Medical Society itself may act as contracting agent.

At the onset the services provided and the sums involved may not be excessive but it is logical to assume that the scope of this or related activities will increase as time goes on. This makes the choice of a contracting agent of more than passing interest.

If the question should reach the House of Delegates at the Roanoke meeting, serious thought should be given to the wisdom of The Medical Society of Virginia designating itself as the contracting agent. If, after a reasonable trial, this should not prove desirable, the Society could then appoint one of the other groups as agent but if one of these groups should be initially designated as contracting agent it might prove more difficult to transfer this authority back to The Medical Society of Virginia should the need arise. Until the picture becomes clarified it would appear wise for the Society to keep a tight rein on the local administration of Public Law 569.

H.J.W.

The Private Practice of Medicine and Medical Ethics

MEDICAL ETHICS, while a delicate subject, is most vital to the very existence of our honored profession as we know and love it. Just what do we mean by Ethics, and what does Medical Ethics mean to us as practitioners of medicine? Definitions are dull and do not answer this important question, but they are informative. Ethics, a short word, means standards of a profession, trade or guild. The Principles of Medical Ethics are the standards of our profession and mean exactly the same today as James Percival's Principles meant when written in 1803. To quote: "These Principles are not laws to govern but are a guide to correct conduct." The Principles of Medical Ethics have been and are set down primarily for the good of the public, and should be observed in such a manner as shall merit and receive the endorsement of the community. Like citizenship, Ethics cannot be learned out of a book or bought at a price. It is a way of medical life, something to be acquired by years of honest and sincere practice of the profession we follow, and courteous, considerate and observant association with our fellow practitioners. Most of us try to live as good citizens, and we succeed to the extent we understand and perform the duties of our citizenship.

Likewise, we want to be good and ethical physicians. In this, we will succeed only to the extent that we understand and perform the duties which we owe the people whom we serve, and give the consideration due colleagues with whom we serve.

The life of the physician, if he is capable, honest, decent, courteous, vigilant and a follower of the Golden Rule will be, in itself, the best exemplification of Ethical Principles.

With the present upsurge of strong, anti-democratic forces to Medicine, Medical Ethics is more important than ever before. We must preserve that idealism which has always led the public to rank medicine with the most honored of professions. This high opinion is due in a large measure to the whole-hearted manner in which most physicians have conducted their professional lives. That is, in accordance with the accepted Principles which have always stressed first the duty of the physician to his patient. They remind him that he, once he has accepted care of the patient, has the moral responsibility of rendering service above the call of duty whether it be to rich, poor, good, bad, friend or foe, and regardless of race, creed or color. The physician is also reminded that, while the patient always has the right to choose his own physician, he should respond to any request for assistance in times of emergency, or whenever public opinion expects such service to be given. It is here, in the absence of the patient's regular physician, that we must be most careful in our attitude toward the colleague who is the patient's regular attendant. Common courtesy demands that the patient be turned back to his own physician as soon as possible, with a note or telephone call informing him of the circumstances and what has been done. Any uncalled for or slighting remarks about what should have been done before, or as to future care, should be made to the physician in charge and not to the patient or his friends.

Such thoughtless remarks often will cause a loss of confidence in both physicians, and the profession suffers. The restlessness and impatience of the public has brought about marked changes in the attitude of many patients to their regular physician, and they run from one physician to another. This makes it all the more important that the physician to physician relationship be at all times courteous and friendly, and great pains should be taken to protect and strengthen the idealism which has made our profession so outstanding.

Whether absolutely necessary or not, it has always seemed expedient that the

medical profession should have some Code of Medical Ethics for guidance. It is interesting to note that the same high principles have always influenced our profession. This is indicated by the fact that in Babylon 2000 years B.C., the famous Hammurabi Code, the oldest code of laws in the world, regulated the practice of medicine in detail, set a scale of fees, and laid down penalties for malpractice. That a physician should lead an exemplary life, that he should be honest and trustworthy in all phases of his life, that he should have the utmost integrity, whether dealing with a patient or colleague, that his services should be rendered just as graciously to the pauper or person of little means as to the more fortunate person are not new concepts nor are they outworn or outmoded. In the Yagur-veda, allegedly written by Brahma between the 14th and 9th centuries B. C., a passage says that the medical teacher should be kind and humble to everyone, should always be ready to expose the good rather than the bad qualities of others, and should always be increasing his knowledge of books. He should be kind and considerate to his pupils and be able to explain the most complicated statements in the simplest and most perspicuous language.

"Transactions in the house should not be bruited abroad. Money will be the recompense bestowed by the rich; friendship, reputation, increase of virtue, prayers, and gratitude will be that of the poor."

What Socrates did for philosophy, Hippocrates may be said to have done for medicine. The Hippocratic Oath is a monument of the highest rank in the history of civilization. The high ideals expressed were not new to medicine of his day but were so accentuated and insisted upon by him that they have been universally adopted ever since.

In 1792, Dr. Thomas Percival was requested by a group of his friends to compose a series of ethical principles as a guide for the members of his profession. With the helpful criticism of his friends, he revised and published the first printed Code in 1803. In our own country, the New York Medical Society adopted a series of Principles of Ethics in 1823, and in 1832 the Baltimore Medical Society did likewise. Both of these were practically the same as Dr. Percival's original Principles of Ethics.

At the first National Medical Convention in New York in 1846, at which time and place the American Medical Association was born, a committee was appointed to draw a Code of Medical Ethics for the medical profession in the United States. Such a Code was adopted in 1847. Needless to say, it was based largely on Code of Dr. Percival. These Principles were modified in 1880, rewritten in 1903, and important additions have been made at intervals since. The Judicial Council of the A.M.A. undertook to re-word the Principles in 1948, not to change them but to make them more clearly understood.

A revision of the Principles of Medical Ethics of the American Medical Association has already been drawn and approved by the proper councils. Final action has been deferred until the Seattle Clinical Session in order that members of the A.M.A. may study it and make suggestions. Such requests have been received by many physicians. To quote from the Secretary's Letter, American Medical Association, Letter No. 368, July 9, 1956. "It is important to understand that Medical Ethics are not distinct or separate from ethics generally, but simply emphasize those general principles which are of particular concern to the medical profession. The ethical physician will observe all ethical principles because he realizes that they cannot be enforced by penal reprisals but must be binding in conscience."

The Principles as proposed consist of a brief Preamble and 10 sections which succinctly express the fundamental ethical concepts embodied in the present Principles.

"Every basic principle," the Council report said, "has been preserved. On the

other hand, as much as possible of the prolixity and ambiguity which in the past obstructed ready explanation, practical codification and particular selection of basic concepts, has been eliminated."

The 10 proposed sections, representing the essence of brevity, follow:

1 The prime objective of the medical profession is to render service to humanity with full respect for both the dignity of man and the rights of patients. Physicians must merit the confidence of those entrusted to their care, rendering to each a full measure of service and devotion.

2. Physicians should strive to improve medical knowledge and skill, and should make available the benefits of their professional attainments.

3. A physician should not base his practice on an exclusive dogma or a sectarian system, nor should he associate voluntarily with those who indulge in such practices.

4 The medical profession must be safeguarded against members deficient in moral character and professional competence. Physicians should observe all laws, uphold the dignity and honor of the profession and accept its self-imposed disciplines. They should expose, without hesitation, illegal or unethical conduct of fellow members of the profession.

5. Except in emergencies, a physician may choose whom he will serve. Having undertaken the care of a patient, the physician may not neglect him. Unless he has been discharged, he may discontinue his services only after having given adequate notice. He should not solicit patients.

6. A physician should not dispose of his services under terms or conditions which will interfere with or impair the free and complete exercise of his independent medical judgment and skill or cause deterioration of the quality of medical care.

7. In the practice of medicine a physician should limit the source of his professional income to medical services actually rendered by him to his patient.

8. A physician should seek consultation in doubtful or difficult cases, upon request or when it appears that the quality of medical service may be enhanced thereby.

9 Confidences entrusted to physicians or deficiencies observed in the disposition or character of patients, during the course of medical attendance, should not be revealed except as required by law or unless it becomes necessary in order to protect the health and welfare of the individual or the community.

10. The responsibilities of the physician extend not only to the individual but also to society and demand his cooperation and participation in activities which have as their objective the improvement of the health and welfare of the individual and the community.

The suggested revision should greatly simplify and make more understandable the Principles without taking any of the important basic factors out of the Code.

Surely, no one can question the importance of Ethics in Medicine. We owe a great debt of gratitude to our predecessors for the high standard which they set and for the high plane of medical practice which they have maintained throughout the years. The Principles of Ethics of the American Medical Association gives us a fair and unbiased guide by which we may consider all the problems of Ethics confronting the profession. There is no better way to repay the debt we owe our predecessors than to study our Code of Ethics and apply its Principles to our every-day life as practitioners of our old and honored profession.

JAMES L. HAMNER, M.D.

Society Proceedings

The Montgomery County Medical Society

Held its spring-summer meeting in Christiansburg on April 26th. Dr. Richard Lowe, Roanoke, presented a paper on Medical Problems Encountered in the Practice of Urology.

Dr. Daniel D. Chiles, Radford, was elected president; Dr. C. F. Manges, Blacksburg, vice-president;

and Dr. C. A. Stone, Jr., Radford, secretary-treasurer.

Williamsburg-James City County Medical Society.

This Society met on September 12th at the home of Dr. Herman Bailey in Yorktown. Dr. J. Edwin Wood, University of Virginia, spoke on Newer Aspects of Coronary Disease.

News .

Calendar of Coming Events

THE MEDICAL SOCIETY OF VIRGINIA—Annual Meeting—Hotel Roanoke, Roanoke, Virginia—October 14-17.

AMERICAN COLLEGE OF GASTROENTEROLOGY—Annual Course in Postgraduate Gastroenterology—The Roosevelt, New York City, New York—October 18-20.

EASTERN PSYCHIATRIC RESEARCH ASSOCIATION, INC.—First Annual Meeting—Hotel Waldorf Astoria, New York City, New York—October 27.

AMERICAN COLLEGE OF OBSTETRICIANS AND GYNCOLOGISTS—5th Annual Clinical Meeting—The Palmer House, Chicago, Illinois—November 7-9.

CONFERENCE ON PROBLEMS OF THE AGING AND THE CHRONICALLY ILL—Sponsored Jointly by The Medical Society of Virginia and the Virginia Council on Health and Medical Care—Hotel John Marshall, Richmond, Virginia—November 8.

SOUTHERN MEDICAL ASSOCIATION GOLDEN ANNIVERSARY MEETING—Washington, D.C.—November 12-15.

AMERICAN PUBLIC HEALTH ASSOCIATION—84th Annual Meeting—Convention Hall, Atlantic City, New Jersey—November 12-16.

AMERICAN MEDICAL ASSOCIATION—Clinical Meeting—Seattle, Washington—November 27-30.

Reference Committee

The membership is advised that Council, sitting as a Reference Committee, will meet in Parlor D of the Hotel Roanoke on Monday, October 15 at 10:00 A.M.

All supplemental reports and new resolutions introduced during the first session of the House of Delegates will be considered.

New Members.

Since the list published in the September issue of the Monthly, the following new members have been admitted into The Medical Society of Virginia:

Robert Verlin Beeler, Jr., M.D., Key West, Fla.

Jesse Reece Cover, M.D., Fairfax

Charles Russell Derrickson, M.D., Falls Church

Henry Frederick William Mohrmann, M.D.,

Orange

Willys Moore Monroe, M.D., Richmond

Charles Emmett Swecker, M.D., Wise

John Wesley Todd, III, M.D., Staunton

What A Golfer!

Dr. C. T. Peirce, Nuttsville, has decided to become a golfer, at the age of 79. After taking four lessons, he played nine holes twice and turned in scores of 57 and 55. Tommy Doerer, pro-manager of the new Indian Creek Yacht and Country Club at Byrdton, says Dr. Peirce has a natural swing and he has never seen anyone quite like him in all his years in golf.

Announces Association.

Dis. Peterson, Barker, Smith, Martin and Snead, Roanoke, announces the association of Dr. John T. McLelland in the practice of radiology. Dr. McLelland is a graduate of Wayne University and served his residency in radiology at the Harper Hospital in Detroit.

Dudley Crofford Smith Lecture.

The first annual Dudley Crofford Smith Lecture in Dermatology will be given at the University of Virginia on the evening of October 29th. Dr. Walter C. Lobitz, Jr., assistant professor of Dermatology at Dartmouth Medical School, Hanover, New Hampshire, will speak on Wound Healing Following Experimental Injury in the Human Skin.

A reception will be held at the Farmington County Club and a portrait of the late Dr. Smith will be presented to the University. This lectureship has been established through the generosity of former students, patients, friends and members of the Smith family.

Drs. Wood Locate in Burkeville.

Dr. John T. Wood and Dr. Frances E. Wood, husband and wife team, have located for practice in Burkeville. They were recently at the VA Hospital in Roanoke.

This is the first time Burkeville has had a doctor

since the death of Dr. J. M. Habel and a "Doctor's Day" picnic celebrated the arrival of the two doctors.

Dr. Rachel Weems,

Recently of Ashland, is now at the Woodrow Wilson Rehabilitation Center in Fishersville.

G. P.'s Open New Building.

The formal dedication of the new American Academy of General Practice national headquarters building was held on September 1st. The building is four stories and contains 30,000 square feet of floor space. It is finished in brick, Indiana limestone and Minnesota granite and was built at a cost of more than \$600,000. It is completely air conditioned with individual controls for each office.

The Academy's 64-man headquarters staff formerly occupied three offices scattered along a six-block strip.

Dr. Louise F. Galvin.

Richmond, has been installed as new vice-president of The Speech Center. Dr. Warren Montague is vice-president. Among the new board members are Dr. Robert Kirkpatrick and Dr. Weir Tucker.

American Board of Obstetrics and Gynecology.

The next scheduled examination (Part I), written, and review of case histories for all candidates will be held in various cities of the United States, Canada, and military centers outside the Continental United States on February 1, 1957.

Candidates must submit case reports to the office of the Secretary within thirty days of being notified of their eligibility to Part I.

Request for re-examination in Part II must be received prior to February 1. Current Bulletins may be obtained by writing Dr. Robert L. Faulkner, Secretary, 2105 Adelbert Road, Cleveland 6, Ohio.

Preceptorship Wanted.

Surgeon, 34, family, Virginia license, outstanding training and references, 5 languages, desires preceptorship starting about January. Write #85, care the Monthly, P. O. Box 5085, Richmond 20, Va. (*Adv.*)

Obituaries

Dr. Junius Ernest Warinner, Jr.,

Richmond physician, died September 4th. He was sixty-four years of age and a graduate in medicine from Johns Hopkins University in 1916. Dr. Warinner had practiced in Richmond since his graduation, except for the time he was with the Medical Corps during World War I. He served on the staff of Grace Hospital and has been appointed to the staff of the new Richmond Memorial Hospital which opens in December. He was a member of the board of directors of the Richmond Memorial Hospital and served on the board of the Richmond Home for Boys. Dr. Warinner joined The Medical Society of Virginia in 1916. His wife, two sons and two daughters survive him.

Dr. Charles Elroy Llewellyn,

Richmond, was killed in an automobile accident on a Western Colorado highway on August 24th. He and Mrs. Llewellyn were on a motor tour of the Far West and their car swerved out of control and overturned twice. Dr. Llewellyn was a native of Hampton and sixty-four years of age. He was a graduate of the Medical College of Virginia in 1916. Dr. Llewellyn was a member of the staff of Johnston-Willis Hospital. He had been a member of The Medical Society of Virginia for thirty-five years. His wife, a son and a daughter survive him.

Dr. Thornton Wilson Hankins,

Swoope, died August 31st. He was seventy-four years of age and a graduate of the Medical College of Virginia in 1907. Dr. Hankins had practiced in Augusta County since 1910. He had been a member of The Medical Society of Virginia for fifty-six years.

His wife and four daughters survive him.

Dr. Horace Allen Albertson,

Roanoke, died August 20th of leukemia. He was thirty-eight years of age and a graduate of the Medical College of Virginia in 1943. Dr. Albertson was in the Service during World War II and had been at the Jefferson Hospital since 1950. He had been a member of The Medical Society of Virginia for five years.

An editorial in the Roanoke World-News stated: "Of course other people die young and their loved

ones, like all others, wonder why it should have happened before even the prime of life and service has been reached. But Dr. Horace A. Albertson was no ordinary young man. He was a brilliant young physician and surgeon, high regarded by his associates and undoubtedly headed for great things. . . . Horace Albertson was an inspiration to all who knew him and he leaves behind not only precious memories but hope and encouragement that someday, somehow the cure will be found for the destroyer which took him away. His last year on this earth, we would say, was his greatest. In his faith he found courage that tells us no man lives in vain if he does the best he can with what he has, accepts what he cannot control, and puts his faith in the Almighty."

Dr. Albertson is survived by his wife, two sons and a daughter.

Dr. John Milton Gouldin,

Prominent physician of Tappahannock, died September 10th. He was seventy-seven years of age and a graduate of the Medical College of Virginia in 1904. Dr. Gouldin had practiced in Essex County for fifty-one years. He was a past president of the Mid-Tidewater Medical Society and was a Life Member of The Medical Society of Virginia.

His wife, four sons and two daughters survive him.

Dr. James Calvin Martin,

Prominent Pulaski physician, died August 12th at the age of forty-eight. He received his medical degree from the University of Virginia in 1934. Dr. Martin entered the Navy in 1942, serving on a hospital ship in the South Pacific until 1946 when he was discharged with the rank of Commander. He then located at Pulaski where he served as staff surgeon of the Pulaski Hospital. Dr. Martin had been a member of The Medical Society of Virginia for ten years. His father, three sisters and three brothers survive him.

Mrs. Fletcher J. Wright, Sr.,

Died August 27th at her home in Petersburg. She was a past president of the Woman's Auxiliary to The Medical Society of Virginia, former state regent of the Daughters of the American Revolution, regent of the Petersburg Chapter, DAR, and former state regent of the United Daughters of the Confederacy.

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'Thorazine' relieved this patient's anxiety, tension and fear and made it possible for him to return to work.

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VIRGINIA

MEDICAL MONTHLY



THE WYOMING
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Guest Editorial

Super (? ? ?) Aspirins

COMBINATIONS of aspirin and cortisone analogues are being promoted vigorously by several pharmaceutical firms. At first glance the combination is an appealing one. Sales will boom, undoubtedly. But should they? A second glance is not so rosy. The following objections to these combinations are readily apparent:

1. Many patients will be given cortisone analogues who do not need them. Some of these patients will be harmed by them.
2. Full doses of the "super aspirins", however, do contain enough cortisone analogue to depress adrenal cortical function, so essential to resistance to infection or injury.
3. Flexibility of corticoid dosage, so necessary to proper use, is difficult to obtain with these combinations.
4. The amount of cortisone analogue in each tablet is so small that 12 to 16 tablets would be needed per day to provide even a small maintenance cortisone-like effect.
5. In the doses recommended any benefit from these combinations could be attributed to the aspirin in the majority of cases.
6. Conversely, it is unlikely that any observed suppressive effect on arthritis could be attributed to the cortisone analogue.
7. The supposed cortisone-like effects of salicylates, by virtue of their pituitary stimulation, and the effectiveness of added ascorbic acid have only the most nebulous clinical application, so far.
8. It would be cheaper and more effective to give the *proper* amounts of cortisone analogue and of aspirin separately.
9. More recently, combinations of cortisones and anti-histamines have been offered for hay fever and asthma. Most of the above objections to "super aspirins" can be applied to these new mixtures. An exception is that the higher content of the cortisone analogue may suppress mild symptoms.

The following conclusions seem proper:

1. "Super aspirins" have, at best, a limited place in the treatment of arthritis.
2. There is no need for them, even theoretically, until it is shown *in each patient* that salicylates to tolerance fail to provide satisfactory relief.
3. "Super aspirins" should not be prescribed until: (1) a clinical diagnosis has

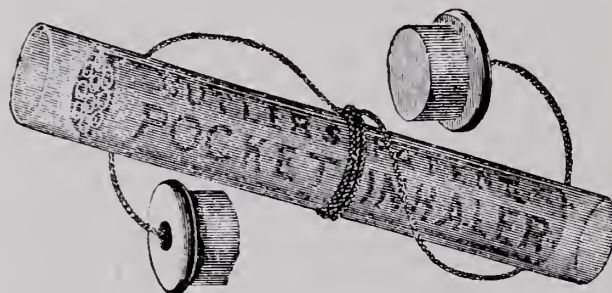
been made of a condition which is known to respond to cortisone; (2) it is shown that there are none of the usual contraindications to cortisone; (3) the need for such therapy is greater than the risks of it; (4) maintenance doses of the cortisone analogue have been determined.

4. The same comments are applicable to the antihistamine-cortisone analogue combinations for treatment of hay fever and asthma.
5. A tag should be worn by patients who take cortisone analogues regularly, similar to those recommended for persons highly sensitive to penicillin and other drugs. The function of the tag is to show that additional cortisone-like drugs may be lifesaving in case of accident, emergency operation, or severe infection.
6. It can be predicted that "super aspirins" and antihistamine-cortisone combinations will not survive extensive, critical evaluation.

OSCAR SWINEFORD, JR., M.D.

Editor's Note: Dr. Swineford is Professor of Internal Medicine, University of Virginia, Charlottesville.

Let's Reminisce!



The December 1874 issue of the Virginia Medical Monthly contains an eight-page ad on Cutler's Pocket Inhaler and Carbolate of Iodine Inhalant. A Most Wonderful Remedy. It will cure catarrh, sore throat and hoarseness, correct bad breath. The Carbolate of Iodine is a preventive of disease. It is in fact and in truth the "Magical Amulet" with which one may bid defiance to miasms, plagues and pestilence. Testimonials were given where the inhaler cured consumption.

Time for Re-appraisal

JAMES P. KING, M.D.
Radford, Virginia

I WOULD LIKE to share with you some of my thoughts as to the future of our profession. The privilege of serving as your President this past year has brought me closer to many of the problems and issues that confront us today. I wish to present some of these questions for which I believe we must find new answers in the months and years ahead.

It is lamentable that the medical profession has apparently lost the privilege of determining the course of medical practice in this country. We physicians are not only the heirs and trustees of a truly great art and science—we are also key players in a social movement that is changing the inner core of our social life.

The time has come for us to engage in a re-appraisal of our attitude and policies, however difficult that task may be. We should determine what we stand for and what we would like to accomplish, in the socio-economic sphere, for the people whom we serve. During the past ten years we have learned that it is not enough for us merely to oppose the propositions that others offer for social reform; we should have a positive program; we should lead the way—not merely fight rear-guard actions.

Our social problems will find many of their solutions—one way or the other—in the realm of politics. But our experiences of the past few years have demonstrated that we cannot look to either of the major political parties for sympathy and understanding of our ideas.

And perhaps this fact will make us realize that our problems are really more social and economic in nature than political. It is not the Democratic Party or the Republican Party that is forcing us to meet the social and economic problems of medicine. It is the American people themselves who are asking us to provide a greater sense of security for them against the socio-economic consequences of illness. It is the American people themselves who want more doctors, more nurses, better public health programs, more medical research, more and better hospital facilities, and a greater assurance of health and security in old age. The sooner we forget that it is not the Democratic Party or the Republican

Presidential address delivered before Annual Meeting of The Medical Society of Virginia, Roanoke, October 15, 1956.

Party—but the *people* of this country—who are challenging us, the better it will be for all of us.

Our problem today is far more difficult than it was, for example, in 1948 and the years immediately afterward. We were then faced with a direct effort on the part of one political party to impose a system of national compulsory health insurance—better known as socialized medicine. This was opposed by the Republican Party, by many conservative Democrats, and other people who realized that the socialization of medicine was but the first and fatal step towards complete socialism in this country.

We knew then what we were fighting, whom we were fighting and why we were fighting. Our case commanded the support of the majority of the people. More important, however, our opposition to compulsory health insurance was justified and counter-balanced by our *support* of the voluntary health insurance plans, then in their infancy. It is safe to say if we had not had our medically sponsored Blue Cross-Blue Shield Plans to point to in 1949 and 1950, we might very well have lost—or been forced to compromise—our fight against compulsory health insurance.

In any event, the issues were clear and relatively simple in those days compared with the situation today.

When Mr. Truman's socialized medicine proposal was turned down, our leaders quite correctly told us that although we had won a battle, we had not won the war. They prophesied correctly that the proponents of socialized medicine would not quit but they would continue their efforts with various "fringe bills" and piece-meal legislation, calculated to weaken our position and soften us up for the final kill.

There have been many such measures introduced in Congress and several of them enacted. In all fairness, we must admit that some of these bills have been good; laws providing federal aid for hospital construction, increased medical research and just recently, the law to provide civilian medical care for dependents of service men.

It seems to me, parenthetically, that medicine would have been in a much stronger position today—as far as its public and political prestige is concerned—

if our American Medical Association had taken a more active and aggressive stand in support of the measures which we did approve. By our failure to more actively work for the proposals we favored, we missed an opportunity to demonstrate to the people that we are not always negative in our attitude, as so many think we are.

When a Democratic Congress recently enacted, and a Republican President signed, the new Social Security Bill—HR 7225—we lost a major battle. We had fought this measure and our leaders predicted serious consequences if it became law. The issues involved in HR 7225 were not as clear-cut as those surrounding Mr. Truman's proposition. Our profession was not alert to the situation, and we did not have the spirit that successfully concluded our fight against the socialistic measures raised in Congress during 1949-50. Our leaders also felt that HR 7225 contained proposals that had great popular appeal, and they consequently refrained from the attempt to organize a broad opposition to the measure as a whole.

We may, nevertheless, profit by the lessons this defeat seemed to teach us: First, that we cannot win legislative battles by a purely negative attitude; we must have an alternative plan to meet the need—such as voluntary health insurance as opposed to the compulsory way. Second, we cannot take a partisan attitude towards such measures, nor expect partisan support from either major party. Third, we cannot expect support for our viewpoint in Congress unless we can mobilize such support among the rank and file of the voting public.

Where does all this leave us today—and tomorrow? What should be our attitude toward P. L. 569—the new law providing civilian medical care for dependents of members of the armed forces? What should be our attitude toward the disability phases of HR 7225, which we strongly opposed in the 84th Congress? Should medicine continue to oppose the principles of these bills? Should doctors offer these programs passive resistance or active participation? What is a realistic stand for medicine now and in the years to come?

Without surrendering any of our well-entrenched

convictions, I believe that we should accept the will of the people as gracefully as we can. We should enter into the spirit of these programs, now that they are the law of the land, and do everything we can to make them successful. As doctors we have a legal and rightful monopoly on the practice of medicine. We have it within our power either to thwart the will of the people, or to carry out their will. If the medical aspects of these and other social welfare programs should fail, the public will know exactly whom to blame for that failure. Thus, we are truly "on the spot" whether we like it or not.

On the other hand, if we give these plans our guidance and support, if we participate in them willingly and sincerely, we can do much to restore public confidence. We can earn the gratitude and support of the people, which will stand us in good stead the next time we have to go to the public and ask for help in defeating a dangerous or unwise proposal.

We have learned some fundamental political lessons from our experience of the past decade. But the most important lesson for us, as I see it, is that we remember that as doctors we are a part of society. I must admit that numerically we are a small part and that we are not—and never will be—a strong political block *within ourselves*. Our great strength, and our only dependable strength, lies in the respect and influence we can wield among our neighbors and fellow-citizens. For it is only by their vote—not by ours alone—that we can muster the necessary strength to save us in an emergency.

How do we preserve and increase this vital asset of public confidence? Only by showing day by day, again and again, that we are on the people's side. Only by demonstrating to our friends and neighbors that we are protecting *their* interests, sometimes at the expense of our own selfish, short-term gains. Only as we store up for ourselves invaluable public prestige by exemplifying the primary principle of our own ethical Code . . . "the prime object of the medical profession is to render service to humanity. . . ."

*St. Albans
Radford, Virginia*

The Impact and Effect of the International Labor Organization Upon World Affairs

WILLIAM L. McGRATH
Cincinnati, Ohio

I WELCOME this opportunity to summarize briefly the current situation with respect to the International Labor Organization. As a nominee of the Chamber of Commerce of the United States and the National Association of Manufacturers, I have served as an advisor to the employer delegation from The United States to the 1949, 1950, 1951 and 1952 Annual International Labor Conferences, and I served as the United States Employer Delegate to the 1954 and 1955 Conferences. In addition, in June 1954, I was elected as employer member of the ILO Governing Body for a three-year term.

How many of you here today are familiar with the International Labor Organization, and what it does? Most of you know, I presume, that it is affiliated with the United Nations. But are you aware that the International Labor Organization has been in existence for some 36 years, considers itself an international parliament, and is drafting basic laws on social and economic matters which are having profound influence upon legislation all over the world?

Seventy-six nations now comprise its membership. The present operating budget is approximately \$7,000,000. Of this amount the United States Government pays 25%, or \$1,750,000 each year, and the other 75 member nations pay the remaining 75%.

As the years have gone by you have seen one socialist proposal after another introduced into the House and the Senate of the United States. Haven't you ever wondered where these came from? Well, I can give you the answer. Many of them have originated in the ILO, which has for years been the breeding ground of international socialistic legislation.

The ILO originated with the League of Nations, with the idea that an international organization devoted to consideration of the problems of labor the world over would be a useful adjunct to the League, and an instrument on behalf of world peace.

The League of Nations died, but the ILO kept

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Presented at the County Society Officers' Conference of The Medical Society of Virginia, Lynchburg, September 15, 1956.

right on going, and the United States joined it in 1934.

Then along came the United Nations, and the ILO hooked up with the United Nations in 1945. The ILO is, however, not under the direction of the United Nations. The United Nations gives the ILO an additional \$2,000,000 a year, of which we pay 33⅓%, for what it calls its technical assistance program, but the ILO runs its own show and gets its own budget appropriations directly from member governments.

The ILO as originally conceived was supposed to concern itself purely with questions dealing with labor—but at a meeting in Philadelphia in 1944 they adopted a declaration which said, among other things, that "Poverty everywhere constitutes a danger to prosperity everywhere"; that people have a "right" to economic security, and which stated, "It is the responsibility of the International Labor Organization to examine and consider *all international, economic and financial policies* in the light of this fundamental objective."

By this device the ILO arrogated unto itself the supposed right to draft basic laws, on social and economic questions, for adoption by member countries all over the world.

In 1954 Russia, which had long been absent from ILO came back in, in a big way, bringing satellite countries also into the picture. The Communists gained a strong foothold in 1954 and have strengthened their position in 1955 and 1956.

That in the main brings you up-to-date on the origin and development of the ILO.

Now let's consider the functioning of the ILO. As I said before, although it is a United Nations affiliate, it isn't bossed by the United Nations, and furthermore it is unique among international agencies because it is not composed solely of representatives of Government.

At its Annual Conference held each June in Geneva, Switzerland, each participating nation has four voting delegates; two representing Government, and one representing employers, and one representing workers. The delegates are accompanied by

advisors. Total attendance is usually over 600, with over 70 nations represented.

At the Annual Conference, the ILO enacts proposals which are in effect skeleton drafts of legislation which it hopes will be enacted by member countries. These may be passed in the form of a resolution, a recommendation or a convention. A convention—and pay close attention to this—is a draft of a proposed international law which, when ratified by member nations, stands as a treaty among them. By this means the ILO seeks to introduce standardized basic laws into countries all over the world.

When the United States joined the ILO in 1934, it was with the reservation that our country would not be bound by such convention procedure, but would consider any ILO proposals as recommendations only.

In 1944, however, when our Congress, by joint resolution, approved the Philadelphia Declaration, we entered the ILO on the same basis as other member nations—so that today, if we ratify an ILO convention, it stands as an international treaty and we are bound by it accordingly.

The ILO has a Governing Body, composed of representatives of governments, workers, and employers, which serves, you might say, as its Board of Directors.

It has a permanent office in Geneva headed by a Director-General, and a staff of about 800 persons. This is known as the International Labor Office. It sends missions of technical assistance to countries all over the world, supposedly to help increase productivity. It conducts research and makes investigations, the purposes and results of which are not too clear, and releases publications, the purpose of which is only *too* clear—namely, that of propagandizing all over the world on behalf of the ILO and the socialistic measures which it champions and promotes.

There is something unique about the Geneva ILO staff and personnel—they are all tax-exempt. Although they constantly recommend measures that will add to the taxes of everybody else, they themselves pay no income taxes to any country.

In its earlier years the ILO devoted itself to matters directly concerned with labor. It enacted conventions, for example, on living quarters of seamen in the international marine service, the employment of women in underground mines, the employment of children in factories, safety provisions, and so forth, and proposed a series of constructive practices which everybody in our country would agree

should apply to employment conditions the world over.

But then the ideology of state socialism came into ascendancy in Europe and spread to other parts of the world. The ILO fell completely under the domination of a socialist government-labor coalition. It decided that *anything* in industry, government, or social systems that in any way affected the working men was a subject for consideration by the ILO. This was how the state socialists moved in on the organization, and used it as a means of promoting socialist ideology.

The employer delegates of all member nations to the ILO have consistently and eloquently objected to the proposed drafts of international socialist laws fostered by the ILO. But they have been hopelessly in the minority, and out-voted on practically all issues.

Now—I have told you that the ILO is a breeding ground of socialist ideas. So now I think I had better get down to cases and give you a few specific examples.

First of all, suppose I review the basic principles of socialism as I understand them from my ILO experiences.

In the United States we believe, as was said in our Declaration of Independence, that men are born with certain unalienable rights, and that Government derives its powers from the consent of the governed.

The principle of socialism is exactly the opposite. The premise of socialism is that all rights belong to Government—and government then parcels them out to the people in line with its own divine judgment. I have sometimes said that the main purpose of the ILO is that of trying to substitute government for God.

The underlying theme of ILO proposals is always government regulation, government domination, government control, government direction, government supervision, and of course, in the long run, government ownership of industry, government price control, and government dictation as to jobs and wages. There is no halfway stopping point on the road to collectivism.

Well—to start with a specific case, let's take Social Security.

It may interest you to know that the ILO brags that one of its earliest and most successful technical assistance projects was when it sent two experts over to the United States to show us how to set up our Social Security System. For Social Security was born and bred in the ILO.

In 1952 the ILO enacted a convention entitled "Minimum Standards of Social Security". Under this title the ILO drafted an international law providing government benefits for practically "all the ills the flesh is heir to." It is a blueprint for the biggest give-away program yet devised.

Under this proposal government would pay people money for the following:

Any condition requiring medical care of a preventive or corrective nature, including pregnancy, and any *morbid condition*, whatever its cause.

Loss of earnings due to sickness or unemployment.

Survival beyond a prescribed age.

Employment injuries.

Babies. The government pays you for having them; the more you have the more money you get.

Childbirth, including care and hospitalization.

Invalidity—which is defined as "inability to engage in any gainful activity."

Death benefits—that is, life insurance.

Originally included in this proposal was a provision to the effect that all life insurance must be compulsory and subsidized by government, and any insurance would be illegal unless government paid at least 25% of the cost of the premiums. This effort at socializing insurance was aimed at putting out of business insurance companies such as we have in the United States.

This convention also contained provisions for socialized medicine, such as they have in England.

Well—now we are getting echoes in the United States.

Our Congress has passed a bill which provides that if at any time after the age of 50 a man becomes totally disabled and is so certified by the government, he can immediately collect the same amount of social security benefits that he otherwise would get after retirement at age 65.

Think what that means. To be eligible for total disability, a man must be certified by government doctors. This means doctors on the government payroll. This puts doctors in government and is the opening step towards socialized medicine.

Now let's take it from the standpoint of insurance. Private insurance companies now protect people against total disability. But now government comes along and enters that field.

So you have, therefore, in this bill, the opening wedge toward socialized medicine and socialized insurance; and these provisions are lifted out of the

ILO Convention on Minimum Standards of Social Security.

For example, the ILO convention proposes government payments for "invalidity", which it defines as the "inability to engage in any gainful activity". Our bill, H.R. 7225, defines "disability" as the "inability to engage in any *substantial* gainful activity"—a change of only one word. Our bill states that a person may be ruled disabled as the result of "any medically determinable physical or mental impairment." The ILO uses the phrase "any morbid condition, whatever its cause." We will be hearing more, in this country, about a morbid condition and invalidity.

In 1952 the ILO passed a convention called the Maternity Protection Convention, which provides that:

An employed woman should be given at least 12 weeks off to have her baby, with free medical care and hospitalization.

During this period she would receive from the government, in cash, an amount equal to two-thirds of her pay.

A woman cannot be discharged while on maternity leave.

Interruptions for nursing the baby, and I quote: "In cases where the matter is governed by or in accordance with laws and regulations", are to be counted as working hours and paid for by the company!

I sat in the Committee on Maternity Protection, and at times I couldn't believe my ears. In that Committee, representatives from countries all over the world spent an entire half-day debating as to whether or not an international law should contain a provision to the effect that a mother should nurse her baby for one hour, during the working day, or for two half-hour nursing periods. As I recall it, France held out for two half hours and Israel held out for one full hour. No conclusion was reached, for the reason, I imagine, that the men on the Committee knew little about the subject, and the women on the Committee seemed singularly unequipped for the purpose under discussion.

In that Committee I got a clear-cut idea as to the relative positions of maternity and paternity in the socialistic Utopia.

Apparently, in those golden days, practically all women are supposed to work. Their babies are financed by Government benefits; and in due course they bring them to work with them, placing them in Government-run nurseries and leaving their machines or typewriters, to nurse them on company

time. There is no distinction between legitimacy and illegitimacy.

The place of the father in the scheme of things, married or unmarried, is reduced purely to the function of paternity. The state takes over, to a large extent, the functions of the family. It provides against a multitude of contingencies for which, in a free society, the husband and father is supposed to provide.

Under such circumstances, what becomes of the family? What becomes of the home? What is the object of the institution of marriage? What happens to the children, starting life in Government or industrial nurseries? What are the people, save wards of the State?

I don't think I need go any further. I could cite many more examples. But I have given you enough to indicate the over-all trend of the proposals which the ILO government-labor majority hopes to enact into basic laws which may be followed by other countries all over the world.

And if you think this is not the case, you are very much mistaken. Thus far the ILO has enacted 103 conventions. Of these, Great Britain has ratified 56, France has ratified 73, Belgium has ratified 55, Holland has ratified 42, Argentina has ratified 45.

You will ask, how many ILO conventions have been ratified by the United States? Here is the answer:

Seven conventions have been approved by the Senate and ratified by the President's signature. Most of these deal with conditions of maritime employment and are not socialistic.

Three conventions have been approved by the Senate but not signed by the President, and seven more were sent by Mr. Roosevelt and Mr. Truman to the Senate Foreign Relations Committee for action. Several of these involve the threat of the invasion of international laws into our domestic affairs.

Now—why has no further action been taken with respect to these conventions in the United States? And why have the more recent and radical ILO conventions, for which our government voted in ILO Conferences, never been submitted to the Senate for consideration, which, under the ILO constitution, our President is supposed to do?

The answer is the Bricker Amendment.

With the whole country aroused to the danger of having socialist measures imposed upon us by the back door of convention ratification, the proponents

of such measures have not dared to bring them out on the floor of the Senate. But in the rest of the world things have gone the other way.

This brings us to the subject of the Communist invasion of the ILO, which began in 1954, continued in 1955, and continues unchallenged today.

Until the Russians moved back into the ILO in 1954, we had been confronted only with Poland and Czechoslovakia, and little attention had been paid to them because the big boss was absent.

But now Russia came back in not as one country, but as three countries—the U.S.S.R., the Ukraine, and Byelorussia. That is the basis upon which Russia belongs to the United Nations. In addition, Russia was reinforced by Poland, Bulgaria, Hungary, Czechoslovakia and Albania. That made 32 votes in the ILO as compared to four votes from the United States.

Although there are 76 nations in the ILO, with a theoretical voting strength of 304, a record of the actual votes cast at the last ILO conference shows an average of 170 votes for and against any proposal.

Of this total, it takes only 86 to make a majority.

I do not need to emphasize to any of you that when it takes only 86 votes to get a majority, a solid bloc of 32 votes, which the Communists now have, and 36 votes which they will have when Rumania is admitted to the ILO, will be very effective.

The free employers in the ILO immediately insisted that so-called "employer" delegates from Communist countries were ineligible, because employer delegations were supposed to represent free associations of free employers and there was no such thing in Communist countries. Government was the employer—and, therefore, employer delegations would be, in effect, merely additions to government delegations.

Representatives of free trade unions likewise objected to the seating of so-called "employee" delegations from Communist countries, on the ground that there were no free unions in such countries and that, therefore, the labor delegations, just as the employer delegations, could only be in fact additions to government delegations.

This argument has now been going on in the ILO for three years—without any conclusion. To register my protest against the seating of Communist so-called "employer" delegates at last year's conference, I withdrew from participation in ILO committees upon which Communist so-called "employers" had been seated.

The seating of Communist so-called "employers"

in employer groups was the equivalent of putting a member of an opposing football team in the middle of a huddle where signals were being called; or to put it another way, it was like placing a Communist on the Board of Directors of the Chamber of Commerce or the National Association of Manufacturers. Naturally the free employers objected, but the majority of the conference ruled otherwise.

Meanwhile we pay 25% of the cost, while the eight communist countries pay a total of 14½%.

The communists have got their foot in the door in the ILO, and they are preparing to take it over. Their interminable tirades of oratory at the 1955 and 1956 sessions were incredible.

The original objectives of the ILO, having to do with the welfare of labor, have been completely subordinated to the use of the ILO as an international debating society for various collectivist ideologies; with our own philosophy of a free competitive system regarded, as we are told in the ILO, as an old-fashioned out-worn concept.

In view of this situation, I developed very serious doubts as to whether the ILO was performing any constructive purpose, and whether the United States should continue to participate in it. I therefore presented this question to the Directors of the Chamber of Commerce of the United States and the National Association of Manufacturers.

The result was that, on January 28, the Directors of the Chamber passed a resolution stating that it was imperative that there be instigated a thorough investigation of the ILO both by the Congress and the executive branch of the government, to determine as to whether the United States should continue to participate in the ILO, or should withdraw from that organization. A similar resolution was passed shortly thereafter, by the Directors of the National Association of Manufacturers.

The resolutions had important repercussions.

Shortly after they were passed by the NAM and the U.S. Chamber, the Senate of the United States considered a proposal to raise the ceiling on United States' contributions to the ILO from \$1,750,000 to \$3,000,000.

The Senate agreed to raise the ceiling. But at that point Senator Bricker proposed that none of the increase should apply after 1956, if during the preceding calendar year "phony employer and employee delegates from the Soviet bloc countries are permitted to vote at ILO meetings." Senator Knowland supported Senator Bricker.

Senator Bricker's amendment carried. Whereupon Senator Fulbright proposed that the U.S. con-

tribution be limited to 25% of the ILO budget. This amendment likewise carried.

So, gentlemen, that is where we stand at the present moment. But the basic question is, should the United States stay in the ILO, or should it withdraw from that organization, and withhold from it any financial support?

But no matter what we do about the ILO, remember that this is only one of the various arms of the United Nations that are enacting conventions, and seeking thereby to write laws governing internal domestic affairs and impose upon us by the device of treaty ratification.

The reason that I have brought the ILO story to you today, is to show you how one of these International Agencies operates and how it accomplishes its objectives.

There is a multitude of these International Agencies now functioning, each operating in a specific field, and allegedly designed for the purpose of resolving controversial issues by so-called experts appointed by governments. The meetings are usually held outside of the United States which restricts American publicity on the subjects under discussion. If an appropriate International Agency does not exist, then one is created.

The representation of the United States in such organizations, regardless of our size and importance, is usually limited to one voice and one vote of the total membership. For instance, in the ILO, where there are 70 member countries, the United States has only one-seventieth of the total voting strength.

Presently there is before the Congress the question of ratifying the membership of the United States in an agency called O.T.C. (Organization for Trade Cooperation). This new agency has been designed to effectuate and implement another agency known as GATT, (General Agreement on Tariff and Trade). The membership of OTC will comprise 35 nations, of which we are only one, and with only one vote on the highly important questions concerning Tariff and Trade matters that will come before that body for its decisions.

Here again it is proposed to use the International technique of removing a controversial issue dealing with Tariff questions which vitally effect the welfare of the American people, from our duly constituted agency in the United States to a foreign agency operated by foreigners, who will attempt to tell us with whom we must trade, and under what conditions, and also what our rates of tariff should be on their imports into our country.

I don't think we want a question so vital as this

to the interests of our country, decided by those who will profit from their decisions to our detriment and disadvantage.

Therefore, I say to you gentlemen, *there is nothing more dangerous, there is nothing that will so involve our freedom and our liberty, there is nothing that will do more to destroy our American way of life and our private competitive enterprise system, than*

for us to remain silent on the subject of these international agencies. They have no purpose except for our destruction, and for the subordination of the United States of America as a member of world government.

3500 Madison Road
Cincinnati, Ohio

"The March of Medicine"

Television's first medical network series, "The March of Medicine", will pioneer again when it presents the first nationwide program in color on a medical subject over the NBC-TV network. It is scheduled for Tuesday, November 27, at 9:30 p.m. and will fill the spot usually occupied by Armstrong Circle Theater. The program called MONGANGA is a one-hour report on missionary medicine and is produced and sponsored by Smith, Kline & French Laboratories in cooperation with the American Medical Association.

"Monganga" will chronicle the life work of Dr. John E. Ross, who, for the past six years, has served as a mission doctor for the Disciples of Christ in Lotumbe, a remote village in the African Belgian Congo. John Gunther, noted author of the best-seller, "Inside Africa", will be the principal commentator on the program.

A native of California, and a graduate of the Indiana School of Medicine, Dr. Ross has devoted his life to bringing the benefits of modern medicine to the remote tribes of the Belgian Congo. "The March of Medicine" has recorded on film countless

natives arriving at the mission station at Lotumbe to seek the aid of "Monganga"—the white doctor. Leprosy, yaws, elephantiasis, sleeping sickness, and arthritis are some of the more common diseases treated by Dr. Ross. When not at the operating table or administering drugs to these patients, he finds time to build new quarters for incoming patients and their families, make trips to distant bush clinics, train a native staff of assistants, lecture to expectant mothers, and answer the demands of a nearby leprosarium.

This will be the twenty-second program in this documentary series. The first program in "The March of Medicine" series opened the doors of the annual American Medical Association meeting to the public for the first time in June, 1952. Since that time, it has documented such topics as arthritis, heart disease, cancer, mental illness, and various surgical techniques, to mention only a few. For this outstanding medical reporting, the series received the first Albert Lasker Medical Journalism Award given in the field of television.

You and the Health Insurance Council

G. MASON CONNELL, JR.
Richmond, Virginia

I WOULD LIKE TO DISCUSS briefly the framework and aims and purposes of "The Health Insurance Council".

The Health Insurance Council is a federated type organization, composed of 8 insurance trade associations whose members are either companies or specialists (such as medical directors of insurance companies) interested in various segments of the insurance industry. Through this medium, life, health and accident, and casualty companies are brought together so that there may be a pooling of the best thinking of a majority of the business. Together, these companies provide about 90 per cent of all health insurance sold in this country. This, however, does not include the coverage provided by Blue Cross, Blue Shield, and similar agencies—even though the Council cooperates with these services on numerous programs of activity.

The survey committee of the Council annually gathers and publishes all available data on the number of persons covered by the various forms of accident and health protection. You may have seen this booklet entitled "Extent of Voluntary Health Insurance Coverage in the United States." It has been published and distributed annually since 1947.

As of the end of July, 1956, there were approximately 110 million persons who owned some form of hospital coverage. This is an increase of 6.1 per cent over 1955. At the end of 1955, ninety-four million people had some form of surgical protection—an increase of 7 per cent. Forty-eight million people had policies covering various medical expenses—an increase of 17.5 per cent. Seven million people were insured against major medical expenses—an increase of 138 per cent. In 1955, payments under voluntary health programs amounted to \$2.5 billion. In addition to the \$2.5 billion paid in hospital, surgical, and other medical benefits in 1955, the insurance companies paid \$595 million in benefits to people to help replace loss of income because of illness or accident. This would bring the total benefit payments for the year to \$3.1 billion. This survey was based upon reports of health protection programs conducted by

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Presented at the County Society Officers' Conference of The Medical Society of Virginia, Lynchburg, September 15, 1956.

insurance companies, Blue Cross, Blue Shield, and other health care plans.

Nearly everyone will agree that people should be given an opportunity to protect themselves against serious financial losses due to sickness or injury. There are, however, those who will differ as to how this protection should be provided. We think the vast majority prefer the voluntary method. In spite of this fact, there are continuous efforts through governmental agencies to enact legislation that would put a compulsory factor into the picture. Those of us who believe in Free Enterprise and the voluntary system should promote these ideas in every way possible—in this we have a common cause.

One thing we can do and should do is work together. The basic aim of the Health Insurance Council is to achieve closer cooperation and closer understanding between *you doctors*, who provide our people with medical care, and those of us who make available protection against the cost of such care. This cannot be achieved without establishing an understanding of each other's problems and a healthy respect for each other's accomplishments.

I am sure most people are aware of the wonderful services doctors and hospitals have rendered, and are rendering, to the people of our country. The great progress of medical science is evidenced by new vaccines and wonder-drugs discovered in the past decade. All of this would not be possible, however, without experimentation.

Perhaps there is a simile here—you doctors are experimenting with new, and perhaps not yet fully proven, medical drugs. In the insurance industry we, too, are experimenting with, and looking into, new forms of contracts to protect the public against undetermined catastrophic experiences. We are attempting to give the policyholder broader benefits at the lowest possible premium. Keeping cost down is one of our problems.

Most of the difficulties encountered in developing successful health insurance policies and plans stem from the human or subjective side of illness. As physicians well know, human health is a very complicated matter. There are those who clearly are well, and those who clearly are sick, but there remain many who are not definitely either the one or the other.

In fact, many physicians consider the rendering of medical treatment to be more of an art or skill than a rigid science. They recognize that agreement cannot always be expected on answers to such questions as: Does the patient need to go to a hospital? Is a private nurse needed? May the patient leave the hospital? When can he return to work?

The patient's appraisal of his own condition is subject, of course, to much wider variation than is medical opinion. Insurance company physicians have learned that among several persons having the same condition, so far as can be determined by objective tests, one may shrug it off and go to work as usual. Another may take to his bed. Still another may make an emergency call to his family physician, while a fourth may demand to go to a hospital.

The difficulties inherent in health insurance arising from the subjective aspects of illness are magnified as soon as sickness benefits are introduced. Some who would go to work, in the absence of benefits, will remain at home if benefits are payable. Likewise, some who would not call the doctor, without the help of insurance toward meeting the bill, will do so if insurance benefits can be had.

In general, the tendency of health insurance to increase the public's demand for health care is desirable. With earlier and more adequate attention, the illness may be less serious, and complications may be avoided.

But certainly, the reduction of monetary restraints by health insurance, tends in some measure to increase needless work absences, fruitless doctors' visits, and hospital stays of no real value. Even in such cases, outright fraud is seldom involved. More often, the insured individual rather unconsciously tends to develop a greater-than-normal concern about his health.

Insurance companies are, of course, aware of these subjective consideration. In fact, a central problem in devising workable health insurance plans is to develop ways and means of dealing with them.

On the one hand, the companies are willing and able to pay policy benefits whenever they serve a necessary and useful purpose. In fact, by paying for helpful medical attention that would not otherwise be provided, health insurance makes a definite contribution toward improving the nation's health.

On the other hand, insuring organizations do not wish to pay unnecessary benefits, and they should not do so to any substantial extent. For them to pay very many needless benefits would mean that premium charges would have to go up without any

increases in the true value of the benefits offered. As a result, many policyholders would let their insurance lapse, and the entire plan of insurance might have to be discontinued. And in any case, the company would be remiss in its duty toward the great bulk of its policyholders. They should not be asked to pay inflated premiums in order that unneeded benefits may go to a few less prudent or less conscientious policyholders.

Consequently, the central problem mentioned is one of control—of how health insurance may best provide benefits when needed without providing benefits when not needed. It may be added that this problem, obviously, is faced not only by insurance companies but also by Blue Cross, Blue Shield, and all other health service organizations.

The development of a careful statement of the risks which the policy insures against, and of the benefits payable under it, is the first step toward solving the problem of control. Carefully outlining the scope and benefits of the policy, of course, does not make certain all benefits paid will be of real value, but it does serve to define the area within which the control problem exists.

Some policies, of course, have much broader scope and provide much more liberal benefits than do others. The less liberal policies naturally have lower premiums, and they are provided for those not able or not choosing to purchase more adequate protection. While health insurance agents advise purchasers to buy fully adequate policies, the final decision is obviously up to the purchaser.

New and improved forms under the highly competitive Free Enterprise system are being marketed daily to meet the needs and the ability of the individual to pay.

To this point, we have been talking more in generalities. Perhaps you would be interested in some specifics. For example, to simplify the "paper work" by you, the practicing physician, the Health Insurance Council has promulgated, with the assistance of various medical organizations, Uniform Attending Physician's Reports. Many of you here today have received insurance reporting forms containing between 35 and 40 questions, some of which were completely irrelevant to your patient's illness. I could mention a dozen examples of inconsistencies, because each insurance company acted independently.

In an attempt to remedy this unfortunate situation, the Uniform Attending Physician's Statements contain between 9 and 14 questions, some of which are optional by the insurance company, but rarely will a form contain all questions. Therefore, in com-

pleting these forms the questions are uniform for all of your patients. That is, you will never see more than the standard 14 questions.

We are now conducting a survey to determine the number of our companies who are using these reporting forms. As yet, we do not have the results, but we are confident that these forms are being placed in use more and more each day. There will come a day soon, I hope, when all companies will use these standard forms. I need not tell you how this will benefit the physicians. In order to reach this goal, however, it is essential that we work together for the benefit of your patients and our insureds.

I would like to say a few words about another program of the Health Insurance Council. This we have called the Hospital Admissions Plan. This plan has been operating successfully in Richmond, Virginia; Columbus, Ohio; Birmingham, Alabama; Atlanta, Georgia; New Hampshire; and Connecticut.

When a policyholder enters a hospital, the admitting clerk has no way of knowing whether the last premium has been paid on the policy, whether the illness is a pre-existing disease, or whether the waiting period under the policy has expired.

Under the Hospital Admissions Plan the insured, upon learning that he must enter the hospital, follows this procedure: The insurance company furnishes a "Physician's Pre-Admission Statement" which is

completed by the insured's physician. This form contains only 8 questions concerning the preliminary diagnosis, by which the company may determine liability. The insured returns this form to the insurer and within a matter of hours the company furnishes a Certification of Benefits. This form outlines for the hospital the amount of benefits payable for the particular period of hospital confinement. On the reverse side of the Certification of Benefits is the Uniform Hospital Insurance Form. This form functions as a uniform statement of claims to be furnished by the hospital.

In the case of an emergency this same procedure may be followed while the patient is confined in the hospital.

It should be pointed out that the completion of the Physician's Pre-Admission Statement, by the physician, is purely for the benefit of the patient. The object is to have the patient admitted to the hospital as quickly as possible with the least amount of anxiety at a time when assistance is needed.

Here, again, in order for this plan to succeed, the patient must have the complete co-operation of his physician, his hospital, and his insurance company, working as a team.

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Films Available

A revised list of films available through the A.M.A. motion picture library has been prepared and copies are available upon request from Motion Pictures and Medical Television of the American Medical Association. This catalog lists 89 medical films suitable for showing to medical societies, hos-

pital staff meetings and other scientific groups. The catalog also includes 45 health films of interest to physicians who may be called upon to speak before lay audiences such as service organizations, Parent-Teachers' Associations, etc.

"Dizziness" as a Patient Complaint

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IN THE COURSE of time every physician encounters a multitude of complaints which lack specificity and which may arise from a number of unrelated histological or physiological defects. "Dizziness" as a chief complaint is one of the more common of this group of highly indefinite lay expressions of discomfort.

In this communication, I shall endeavor to dissect "dizziness" into the various entities which initiate the complaint. First of all, the physician must obtain from the patient a more definite and workable complaint than that of "dizziness"; that is to say, it should be determined whether the patient is experiencing lightheadedness, vertigo, ataxia, muscle weakness, diplopia, blurred vision or some other sensation. One must then obtain full notes on the temporal aspects, mode of onset, precipitating factors, means of alleviation, and of associated symptoms. Following the history taking, a complete general physical and neurological examination is imperative.

When the physician has collected the above data, he should be able to arrive at an etiological diagnosis in very close to 100% of such problems.

In order to afford a means by which the physician is able to understand and recognize the possibilities, a classification of "Dizziness" is offered, as follows:

"DIZZINESS"

I—LIGHTHEADEDNESS

A—Altered cerebral circulation

1—PRECARDIAC

- (a) Carotid Sinus Syndrome (Decreased Pulse Pressure)
- (b) Postural Hypotension
- (c) Shock
- (d) Vena caval obstruction

2—CARDIAC

- (a) Carotid Sinus Syndrome (Vagal Effect)
- (b) Stokes-Adams Attacks
- (c) Tachycardias
- (d) Aortic stenosis
- (e) Congestive heart failure

3—POST-CARDIAC

- (a) Carotid Sinus Syndrome (Central effect)
- (b) Anemia
- (c) Cerebral arteriosclerosis
- (d) Hypertensive encephalopathy
- (e) Cerebral vasodilation

B—Muscular Extracranial Effects

C—Altered Cerebral Metabolism

- 1—Intoxicants
- 2—Hypoglycemia
- 3—Hyperventilation

II—VERTIGO

- 1—Meniere's Syndrome
- 2—Labyrinthitis
- 3—Internal Auditory Artery Occlusion
- 4—Acoustic Neuroma
- 5—Motion Sickness

III—ATAXIA

- 1—Cerebellar System Disease
- 2—Dorsal Column Disease

IV—MUSCLE WEAKNESS

- 1—Primary Muscle Disease
- 2—Myasthenia Gravis
- 3—Peripheral Motor Neurone Disease
- 4—Cortico-Spinal Tract Disease

V—ALTERATION IN VISION

- 1—Acuity loss
- 2—Extra-ocular Movement Abnormality

VI—SEIZURES (EPILEPSY)

I—LIGHTHEADEDNESS

Certainly, most individuals who complain of "dizziness" are, in fact, experiencing what can be more accurately defined as lightheadedness. This sensation may arise from a wide variety of factors which are capable of producing either transient or permanent alterations in cerebral circulation or metabolism, or sustained muscle contraction.

1—PRECARDIAC

In the so-called "precordial" group of cerebral circulatory alterations, the lightheadedness, faint or seizure is due to diminished venous return to the right auricle: hence decreased cardiac output and resultant diminution in cerebral blood flow.

Weiss described the triad of the Carotid Sinus

Syndrome and pointed out a "precardiac" mechanism of syncope in which a fall in pulse pressure results from stimulation of a hypersensitive carotid sinus. In this variety of the rare syndrome, the etiological clue rests in the reproduction of symptoms on pressure over one or the other carotid sinus in the neck with the concurrent demonstration of a significant, abrupt reduction in pulse pressure. Ephedrine may be of therapeutic value, but in the more severe cases surgical stripping of the sinus is indicated.

Postural hypotension is almost always iatrogenic and is now frequently seen in patients who are receiving ganglionic blocking agents or who have had a surgical sympathectomy as treatment for hypertension. The diagnosis is confirmed by the demonstration of a significant fall in blood pressure, due to splanchnic pooling of blood, on assumption of the erect position. The disturbance can be corrected by alteration in drug therapy or by use of elastic leg wraps and an abdominal binder.

Superior vena caval obstruction is not an uncommon complication of mediastinal tumor. The resulting impairment of venous return from the upper trunk, arms and head results in an increase in cerebro-spinal fluid pressure and cerebral edema. A sensation of lightheadedness results. In this circumstance of increased intracranial pressure there is usually no papilledema since intraocular pressure rises comparably with the increase in venous pressure and the optic nerve is prevented from bulging into the eye. Treatment by carefully administered small exposures of the tumor to radiation may afford transitory relief.

Inferior vena caval obstruction may also produce lightheadedness through increase in venous pressure and resulting rise in intracranial pressure. Another mechanism of lightheadedness related to inferior vena caval obstruction is that of transitory decrease in venous return to the right auricle, as may occur in late pregnancy when in the supine position, the pressure exerted by the gravid uterus obstructs the inferior vena cava. Lightheadedness ensues, due to reduced cardiac output.

2—CARDIAC

In the "cardiac" group of syncopes, the lightheadedness is an expression of decreased cerebral circulation, secondary to diminished cardiac output caused by changes in ventricular rate or to organic heart disease.

It is in this category that the second type of carotid sinus syndrome is found. Afferent impulses travel from the sinus over the glossopharyngeal nerve

and efferent impulses reach the heart via the vagus nerve. The result is asystole or marked slowing of ventricular rate. Atropine may successfully block the pathway and prevent syncope.

The Stokes-Adams syndrome is also characterized by syncope, coma or even convulsions, as a manifestation of asystole. Administration of sympathomimetic or parasympathetic-blocking drugs, such as ephedrine or atropine, may prevent or minimize attacks.

The various ectopic tachycardias cause a shortening of diastolic filling time with resultant decrease in ventricular output, so that, in general, if a ventricular rate of 180 per minute is exceeded, the total minute volume is reduced and cerebral circulation is so impaired that lightheadedness is experienced. Treatment is directed toward slowing of the ventricular rate. This is usually accomplished with digitalis in supraventricular tachycardias, though in some cases quinidine or pronestyl may be used. These latter drugs are indicated in ventricular tachycardias.

Aortic stenosis often results in lightheadedness especially with exertion. Presumably, this is due to insufficient left ventricular reserve for preservation of adequate cerebral circulation. Currently, treatment is limited to efforts toward maximal cardiac compensation, though aortic valvulotomy techniques may be forthcoming. Like aortic stenosis, congestive heart failure from any cause may produce syncope on exertion as a result of limited cardiac reserve.

3—POST-CARDIAC

In the "post-cardiac" group, the lightheadedness is a manifestation of a transient or fixed alteration in the circulatory state within the head, independent of cardiac output.

The third variation of the triad of Weiss is that of syncope on carotid sinus pressure without significant fall in pulse pressure or ventricular slowing. It has been shown by Weiss that no remarkable reduction in total cerebral circulation occurs during attacks. It is likely that there is here a local reduction of blood flow to the reticular substance of the brain stem and thalamus, upon which cortical "alertness" is dependent. Atropine and ephedrine are ineffectual in this situation, and surgical stripping of the sinus may be necessary.

Anemia of significant degree may result in cerebral ischemia severe enough for the production of lightheadedness. Treatment should be directed toward correction of the anemia and its cause.

Cerebral arteriosclerosis is a frequent and, at

present, intractable cause of cerebral ischemia and hence lightheadedness.

Hypertensive encephalopathy results in the symptom, probably because of the associated cerebral edema. It is best treated by newer, potent, hypotensive agents.

The exact etiology of the lightheadedness, which accompanies cerebral vasodilatation, such as may occur with the use of drugs, i.e., nitroglycerine or priscolene, and in menopausal "hot flushes", is not understood.

In tense, anxious people, lightheadedness is a very common complaint. Here the persistent contraction of the scalp and neck muscles produces the sensation of giddiness or lightheadedness. Effective treatment must be based on better adaptation of the patient to his environment, though sedatives, reassurance and hot baths may afford temporary relief.

Altered cerebral metabolism may result from intoxicants, such as alcohol, barbiturates, or opiates and is corrected by removal of the offending agent.

Hypoglycemia from any cause will produce lightheadedness, faint or fit, especially if the fall in blood sugar is rapid. Removal of the cause, alteration in diet, and administration of intravenous glucose in the emergency state are indicated.

The so-called "hyperventilation syndrome" is manifested by attacks of lightheadedness or giddiness, generalized weakness, aching pain in the left anterior chest and by frequent sighing respirations. Lightheadedness results from the alteration in cerebral metabolism dependent upon the respiratory alkalosis produced by blowing off of carbon dioxide and the resultant reduction in circulating carbonic acid. The syndrome is a manifestation of anxiety and can be reproduced by having the patient intentionally hyperventilate. Relief from symptoms with any given attack is afforded by having the patient rebreathe carbon dioxide as in breathing into a paper bag.

II—VERTIGO

Vertigo may be defined as a sensation of abnormal motion in space. Ménière's Syndrome includes vertigo as an outstanding symptom. The syndrome triad also includes progressive deafness and tinnitus. Here the vertigo is explosive in onset and usually violent. The sensation of motion may be either rotational or one of heaving of the floor. It is usually associated with varying degrees of nausea and vomiting and may actually be accompanied by unconsciousness. The violent attack lasts from a few minutes to hours and a sensation of mild vertigo or unsteadiness may

persist for several days after the acute episode.

Tinnitus with or without deafness in one or both ears may precede the attacks of vertigo for years, but these symptoms need not be noticed prior to the appearance of attacks of vertigo. If present, tinnitus is usually increased in volume at the time of the attack of vertigo. Audiometric examination reveals impairment of hearing of varying degree, first in the high frequency range. Cold caloric response may be normal, moderately depressed or moderately exaggerated. Over a period of time, usually measured in terms of years, the deafness becomes total and the attacks of vertigo cease. The etiology of Ménière's syndrome is unknown but may well be a vasoconstriction phenomenon as an adaptation or stress manifestation. Ultimate treatment in severe incapacitating cases is surgical and involves either total or subtotal eighth nerve section or destruction of the labyrinth. In milder cases, salt restriction may be helpful and certainly, in some cases, alleviation of or better adaptation to stress factors may reduce the frequency of attacks.

Labyrinthitis was at one time a fairly common complication of mastoiditis. With the advent of antimicrobial therapy this serious type of infection is rare. Certainly, however, a form of labyrinthitis, which is probably an inflammatory disease of viral origin, is still fairly common. The illness is characterized by a rotational vertigo, often of magnitude sufficient to produce nausea and vomiting. The vertigo is exaggerated by any motion of the head and the patient is most comfortable lying on the affected side. This illness is self-limited and often is associated with symptoms of coryza. The vertigo is probably the result of hyperirritability of the inflamed labyrinth.

Obstruction of the internal auditory artery or its parent vessel, the basilar artery, results in vertigo, again secondary to labyrinthine dysfunction. When the basilar artery is involved, the vertigo is due also to vestibular nucleus ischemia.

The vertigo associated with acoustic neuroma is invariably associated with loss of hearing due to involvement of auditory nerve fibers and the cold caloric test reveals a dead or very hypoactive labyrinth. Here the vertigo is constant and progressive, as opposed to that of other syndromes. In this condition the cerebrospinal fluid protein is elevated to greater than 100 mg.%. Surgical removal of the tumor is indicated.

Motion sickness is fairly readily diagnosed if it is ascertained that the vertigo and nausea are associated with some form of motion. The etiology of

the syndrome is not entirely clear, but it is probably due to stimulation of the relatively dormant superior semicircular canal. Treatment with a drug, such as Chlorpromazine may be of value.

III—ATAXIA

Ataxia may be defined as an instability of station and gait. The symptom may arise as the result of cerebellar system disease or of dorsal column disease.

Cerebellar system disease occurs in a wide variety of illnesses. It may occur as an isolated defect, as in cerebellar tumors or cerebellar agenesis, or in combination with other lesions, as in the familial cerebellar ataxias. The signs of cerebellar disease include the ataxic gait, the inability to retain balance whether the eyes are open or closed, tremor at rest and on intention, reduced resistance to passive stretch, impaired check and rebound, and "pendular" reflexes. Contrary to popular belief, nystagmus is not a manifestation of pure cerebellar system disease and when nystagmus is present, it is due to involvement of the adjacent vestibular nucleus.

There is a syndrome of diffuse or midline cerebellar disease of special interest which occurs occasionally after prolonged administration of barbiturates or dilantin. The symptoms disappear several days after removal of the offending drug.

Among the many complications of prolonged alcoholic intake is a little discussed problem of ataxia in which the only sign of cerebellar disease is the ataxia. The gait is usually not wide-based and there are no features of lateralization. Withdrawal of alcohol and institution of a good diet with vitamin supplementation may decrease the difficulty, but, unfortunately, these measures rarely completely reverse the ataxia.

Dorsal column disease so interferes with the appropriate sensation of position in space as to produce ataxia. Here the ataxia is distinctly greatest when the eyes are closed or when the individual attempts to perform in darkness. Visual sensation is capable of compensating for the defect in position sense. Vibratory sense is also impaired, but touch is preserved, due to its dual pathways. Any neoplastic traumatic, demyelinating or other lesion may produce signs of dorsal column dysfunction, but two diseases classically produce dorsal column disease. These are tabes dorsalis and subacute combined degeneration. The former is a manifestation of late syphilis, is almost invariably accompanied by the Argyll-Robertson pupil, and often by attacks of severe abdominal pains and burning pains in localized areas in the extremities. Adequate treatment

with penicillin may eradicate the syphilis but the posterior column disease often progresses despite the inactivation of the infection.

In pernicious anemia there may be a neurological disorder involving the dorsal and lateral columns with resulting loss of position and vibratory sense and signs of cortico-spinal tract disease. Treatment with vitamin B₁₂, intramuscularly, is indicated for life. The neurological disorder may be thus arrested but usually is not totally reversed.

IV—MUSCLE WEAKNESS

Muscle weakness, especially of the lower extremities, may produce such alteration in gait as to cause stumbling and a complaint of "dizziness". Also, diffuse muscle weakness is often described by the patient as "dizziness". The weakness may arise from a great variety of anatomical lesions. Treatment, of course, depends on identification of the specific cause of the weakness.

V—ALTERATION IN VISION

Alterations in vision, especially if they be acute, may cause the patient to complain of "dizziness". This is especially true with the onset of blurred vision of optic neuritis or with the diplopia of myasthenia gravis. The unreal visual experience which results produces a sensation of giddiness or of imbalance. Treatment will vary with the cause of the visual dysfunction.

VI—SEIZURES (EPILEPSY)

A common aura of grand mal epilepsy is one of lightheadedness or faintness, and the syndrome of minor seizures is often interpreted as "dizziness", especially if the transient unconsciousness is not recognized. The diagnosis is suspected if a careful history is obtained. The attacks may be better described by members of the family than by the patient himself. The electro-encephalogram is a useful, but not an infallible diagnostic aid and a therapeutic trial on anticonvulsant therapy may be necessary. Once the diagnosis is confirmed, appropriate, long-term anticonvulsant therapy is indicated.

SUMMARY

In summary, the problem of "dizziness" as a complaint has been reviewed. It was pointed out that this common complaint is very nonspecific.

A classification of the complaint is offered in the hope of affording a useful approach to the problem and a discussion of specific syndromes was presented.

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Indeterminate or Low T Waves

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VARIATIONS in the T wave of the electrocardiogram are at times extremely helpful in the diagnosis of cardiac disease. The normal T wave is usually upright with an amplitude of 2 to 5 mm. and 0.1 second in duration. T waves with less than 1 mm. amplitude or 1 mm. inversion are considered abnormal but present a specific problem especially when there are no other changes in the electrocardiogram. This study is an attempt to correlate these minor T wave changes with the clinical picture. We have eliminated secondary T changes associated with QRS abnormalities or those individuals under the

- II. A T wave of less than 1 mm. inversion when R wave was greater than 5 mm.
- III. Vertical heart. The changes such as I and II occur in leads 2, 3, and aVf. (See Figure 1.)
- IV. Horizontal heart. The changes such as I and II occur in leads 1, 2, aV1, V-4, V-5, and V-6 (See Figure 2.)
- V. Intermediate position of the heart. The changes such as I and II may occur in any lead but are usually present in V-4, V-5, and V-6. (See Figure 3.)

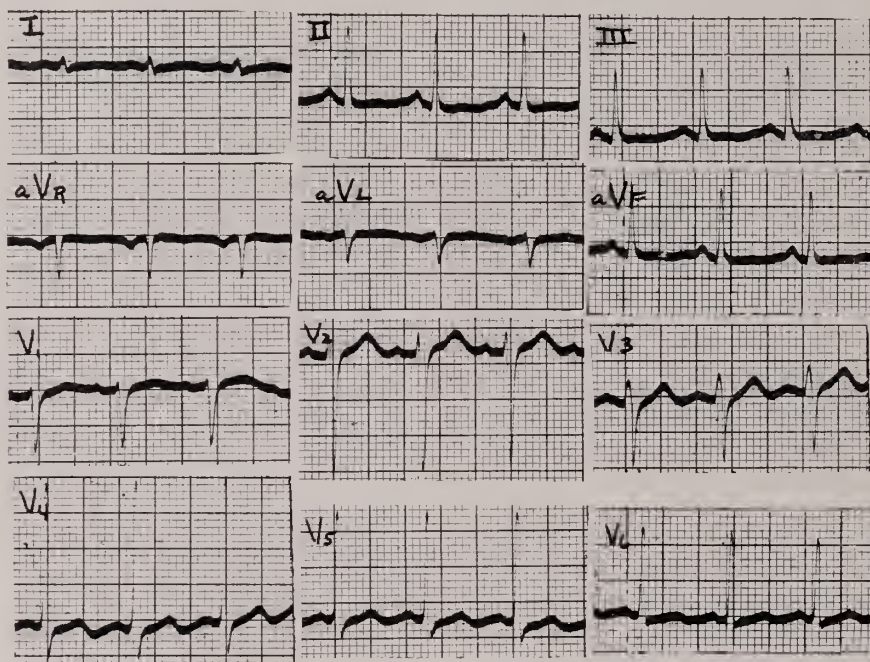


Figure 1.—Vertical Heart: Low or indeterminate T wave in leads 2, 3, and aVf.

influence of digitalis or quinidine. The location of abnormal T waves are dependent on the electrical position of the heart and the amplitude of these waves must be correlated with the amplitude of the other complexes.

The standards for indeterminate or low T waves were:

- I. A T wave of less than 1 mm. amplitude when R wave was greater than 5 mm.

From the Department of Medicine, Heart Station, Medical College of Virginia.

DISCUSSION

The cases were selected from 1000 routine tracings taken at the Medical College of Virginia. We found in these 1000 electrocardiograms, eighteen cases with horizontal heart, seven cases with vertical heart, and six cases with intermediate position of heart. In the thirty-one with indeterminate or low T waves, twenty-four or 77% had hypertension. This was found mainly in those hearts which were horizontal or intermediate in position. In twenty-four of the horizontal or intermediate position hearts,

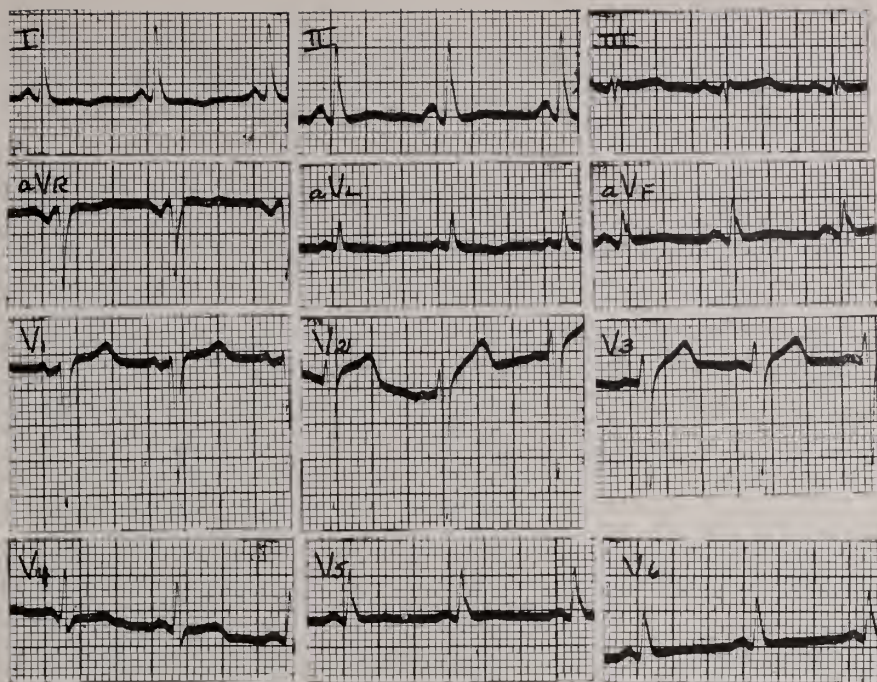


Figure 2.—Horizontal Heart: Low or indeterminate T wave in leads 1, 2, aV1, V-4, V-5, V-6.

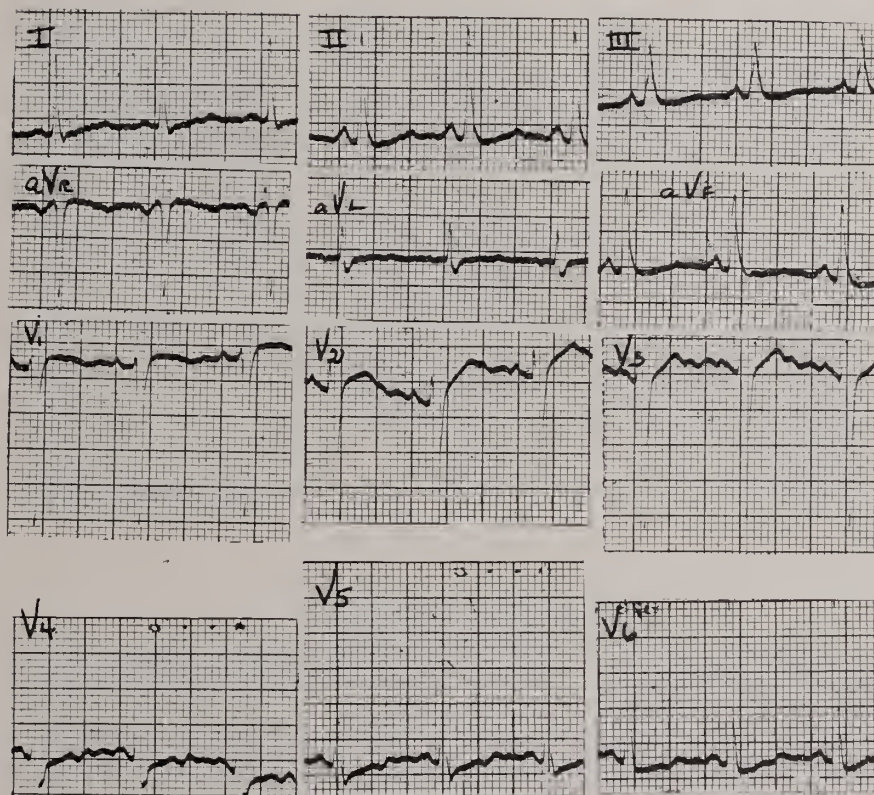


Figure 3.—Intermediate Position Heart: Low or indeterminate T wave in leads 3, aVf, V-4, V-5, V-6.

twenty-two or 91.7% had hypertension. In those with vertical hearts only two had hypertension.

Radiologic or fluoroscopic evidence of enlargement of the heart was found in 16, or 66⅔% of the twenty-

four cases with horizontal or intermediate position hearts.

Most of the cases with low or indeterminate T waves not only had hypertension and/or enlarged

hearts but also evidence of degenerative vascular disease in other parts of the body.

CONCLUSION

The finding of indeterminate or low T waves in a horizontal or intermediate position is very sug-

gestive of an abnormal cardiac state, usually associated with hypertension. In 66⅔% of these the heart was enlarged. Low or indeterminate T waves in a vertical heart are not as important and may be considered a normal variant.

Figure 4*

Case	Age	Race	Sex	Symp-toms	Cardiac Enlarge-ment	Blood Pressure	Cardiac Position	Discharge Diagnosis
1	84	C	M	+	+	160/95	H	HCVD & ulcers of lower legs.
2	78	W	M	+	+	210/95	H	Senile cataracts, and HCVD.
3	65	W	F	-	-	150/100	H	Cerebral thrombosis and HCVD.
4	48	W	M	-	-	146/90	H	Melancholia.
5	46	W	M	-	+	140/90	H	Melancholia.
6	39	W	F	-	+	130/80	H	Cholecystitis.
7	33	W	F	-	-	160/120	H	Psychosis undetermined.
8	70	C	F	-	+	170/100	H	HCVD with leg ulcers.
9	55	W	F	-	+	220/128	H	Carcinoma of abdominal wall.
10	57	C	M	-	+	150/110	H	Prostatic hypertrophy.
11	57	W	F	-	+	220/128	H	Cholecystitis.
12	61	W	M	-	+	174/100	H	Diabetes and HASCVD.
13	38	C	F	+	+	154/98	H	Rheumatoid arthritis.
14	54	C	M	+	-	164/100	H	Anal stenosis and HCVD.
15	38	C	F	+	+	200/130	H	Uterine fibroids and HCVD.
16	73	C	M	+	-	240/140	H	Incarcerated inguinal hernia, and HCVD.
17	73	W	F	-	-	190/110	H	Cerebral thrombosis and HCVD.
18	65	C	F	-	+	145/95	H	Carcinoma, rectal.
21	55	W	F	-	-	120/80	V	Chronic lung disease.
22	49	W	M	-	-	140/85	V	? RLL lung lesion.
23	45	C	M	-	-	110/82	V	Paraplegia, traumatic.
24	50	C	M	-	-	155/110	V	Neuro-syphilis and HCVD.
25	46	W	M	+	+	150/80	V	Alcoholism, chronic.
26	46	W	M	+	-	140/90	V	Myocardial infarction.
27	30	W	F	-	-	135/85	V	Diabetic acidosis.
31	17	C	F	-	-	160/90	I	Eclampsia.
32	41	C	F	-	+	180/100	I	Uterine fibroids and HCVD.
33	35	W	M	-	+	192/110	I	Alcoholism, chronic.
34	51	C	F	+	-	150/70	I	Urethrocele.
35	75	W	F	-	+	196/90	I	HASCVD and Pneumonia.
36	58	C	F	-	+	180/100	I	Toxic thyroid.

*Key to Figure 4.
Symptoms: Positive (+) indicates the patient had dyspnea or chest pain.
Cardiac Enlargement: Refers to radiologic or fluoroscopic findings.
Diagnosis: Indicates discharge findings.
H = Horizontal position heart.
V = Vertical position heart.
I = Intermediate position heart.

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Monthly Report of Bureau of Communicable Disease Control

			Jan.-	Jan.-	Meningitis (Other)	29		119	--
	Sept.	Sept.	Sept.	Sept.		84	59	177	266
	1956	1955	1956	1955	Poliomyelitis	18	29	246	295
Brucellosis	8	2	25	23	Rabies in Animals	9	7	46	44
Diphtheria	1	3	24	18	Rocky Mt. Spotted Fever	506	405	4676	5558
Hepatitis (Infec.)	42	44	380	920	Streptococcal Infections	1	1	18	11
Measles	81	52	23524	3744	Tularemia	11	3	44	32
Meningococcal Infections	4	1	65	72	Typhoid Fever				

Current Currents

"SOCIAL IN-SECURITY—The Trap Awaiting The Young M.D." is must reading for every physician. The first part of this revealing article can be found in the September 15 issue of the A.M.A. Journal, and you are urged to study its contents carefully. Many physicians have been confused by conflicting statements concerning the advantage and disadvantages of social security. Here is an article which analyzes the program from a physician's point of view and comes up with some startling facts.

SPECIAL ATTENTION is called to a news item on Public Law 728 published in this issue. This law provides regulations for surrender or seizure of heroin. The Bureau of Narcotics has requested that we stress the fact that no reimbursement will be made to registrants who surrender heroin or heroin compounds after November 19, 1956.

THE MEMBERSHIP is invited to attend the Conference on the Aging and the Chronically Ill to be held at Richmond's Hotel John Marshall on Thursday, November 8. The Conference, first of its kind in this area, is co-sponsored by The Medical Society of Virginia and the Virginia Council on Health and Medical Care.

The program includes such outstanding speakers as Dr. Dean W. Roberts, Chicago; Dr. Walter O. Jahrreiss, Baltimore; Dr. H. B. Mulholland, Charlottesville; Dr. Mack I. Shanholtz, Richmond; Mr. J. Douglas Coleman, Baltimore; Mr. Corbett Reedy, Charlottesville, and Mr. Herbert V. Kelly, Newport News.

THE AMERICAN MEDICAL ASSOCIATION has launched a study to learn what the hospital patient gets for his money. It will be the second phase of a three-part, five year study measuring medical services given to the American people by their physicians. The survey is expected to cost approximately \$100,000 and is the first of its kind—measuring services and not money spent.

The results may possibly help bring about changes in hospital construction, medical education, health insurance rates, etc.

The current questionnaire is being mailed to 7,000 hospitals and will help answer such questions as: Which ailments or conditions are sending most Americans to hospitals? Which are keeping them there the longest? How many beds are taken up by accident casualties, by pregnant women, by patients undergoing non-emergency surgery?

"ON IMPACT", a 15-minute documentary showing how the medical profession and the automotive industry are cooperating in a new approach to highway safety, is being sent this month to all television stations by the Ford Motor Company. Dr. Fletcher D. Woodward, Charlottesville, has a prominent part in the film.

WORK IS NOW UNDER WAY at federal and state levels on a new and permanent medical care program for persons in four public assistance categories. This program, authorized by the last session of Congress, can result in as much as \$200 million in U.S.-state funds, being paid annually to physicians, dentists, nursing homes, hospitals and druggists. Money will be half federal and half state.

In the event of a business recession, this fund could become much larger, since more persons would be forced to obtain public assistance.

Medical care funds furnished under this new program, which goes into effect July 1, 1957, must be paid to the vendors of medical services, or their agents, by the states. The states themselves will decide on the methods for contracting with and reimbursing physicians. These decisions by state welfare agencies will have an impact on state societies and the profession.

ORGANIZED PUBLIC RELATIONS, fairly new to the medical scene, recently received a vote of confidence from physicians. A nationwide survey, commissioned by AMA, reveals that 9 out of 10 doctors believe public relations should be an important or very important function of AMA.

PR programs, according to the doctors interviewed, make for better understanding, establish AMA and its societies as the voice of the medical profession, and bring public and doctor together. Their influence in defeating government medicine is also acknowledged.

Physicians in the South and East are less aware of PR program changes at the national level than physicians in Central and Western parts of the country. Physicians in the East are even less aware of revamped PR programs in their state associations than they are of changes in the national program. However, the reverse is true in the South where more physicians say they have seen changes in their state programs than they have on the national level.

Physicians are not fully satisfied with PR achievements. Others who know AMA rate its public relations success higher than doctors do. Only one in five say the Association is not doing a good enough PR job, but also about half (48%) of the doctors are not completely satisfied with progress.

DO NOT FORGET the American Medical Associations' 10th Clinical Session. The Session will be held in Seattle from November 27-30 and will be tailored for the general practitioner. It is intended to provide the family doctor with information about the latest special techniques, treatments, medicines and equipment.

The center of activities will be Seattle's Civic Auditorium, where scientific sessions will be held and more than 200 scientific and technical exhibits displayed. Headquarters will be the Olympic Hotel.

Clinical Evaluation of Atarax

A Non-Barbiturate Calming Agent

MILTON ENDE, M.D.

Petersburg, Virginia

RECENTLY, the pharmaceutical industry has introduced several tranquilizing preparations which quiet overactive subjects and calm disturbed patients in a selective way. Three of these preparations have an entirely different chemical structure. They are: meprobamate, a propanediol dicarbamate; reserpine, an alkaloid derived from *Rauwolfia serpentina*, and chlorpromazine, a synthetic derivative of phenothiazine. To this group can now be added a fourth preparation known as Atarax* (hydroxyzine), a piperazine-type derivative which appears to have less side effects than the other compounds. This drug has been used extensively for the treatment of common anxiety and tension states, occurring in everyday life, by physicians in Mexico, Belgium, and other parts of Europe.

Its pharmacologic and clinical action has been reported by several American and one Mexican investigator.^{1,2,3,4,5}

CHEMISTRY AND PHARMACOLOGY

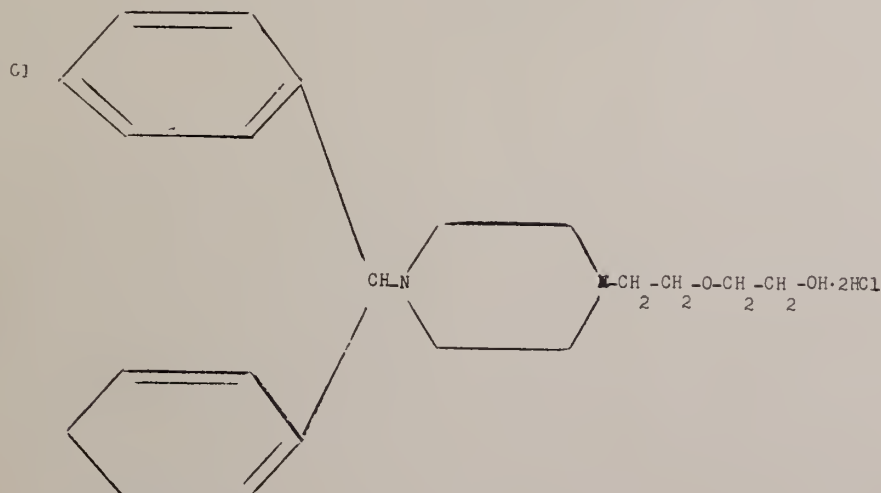
The generic name of Atarax is hydroxyzine. Chemically, the compound is designated as:

1-(p-chlorobenzhydryl)-4-[-2-(2-hydroxyethoxy)ethyl] diethylenediamine.

The hydrochloride of hydroxyzine is a crystalline solid readily soluble in water, and is, therefore, readily absorbed from the gastrointestinal tract. Its chemical structure (see table I)) indicates that it is related to a group of antihistaminic substances identical with respect to their basic benzhydryl and piperazine configurations.⁶

The acute toxicity of hydroxyzine hydrochloride has been studied in mice, rats, and monkeys. When an oral toxic dose was given to mice, the drug produced only depression prior to death. In rats, however, tremor and ataxia were observed in addition to depression. Acute oral toxicity tests on 50 rats showed that the maximum dose tolerated was 850 mg./kg., and the oral administration of 100 mg./kg. of bodyweight in five rats produced no mortality over 30 days; 4 out of 5 rats withstood daily feedings of 200 mg./kg. over a period of 30 days. Rats given hydroxyzine became quiet soon after the administration of the drug, and their movements became slower and steadier. However, as soon as the animals felt some threat from the outside they fled from the danger without loss of their usual agility and alertness. Monkeys having received acute oral doses of 25, 50, 100, and 400 mg./kg. of bodyweight

STRUCTURAL FORMULA OF ATARAX



*J. B. Roerig and Company, Division of Chas. Pfizer & Co., Inc.

exhibited no significant change in behavior other than emesis in the higher (200-400 mg.) dosage range.

CLINICAL DATA AND RESULTS

Atarax tablets, each containing 10 or 25 mg. of hydroxyzine hydrochloride were administered to a consecutive series of 100 patients, consisting of business executives, laborers, and housewives, with various degrees of anxiety and tension caused by the physical and mental stress conditions encountered in everyday life. In approximately 25% of the patients, anxiety states occurred in combination with organic illness. The dosage ranged from 10 to 50 mg. t.i.d. and was adjusted upward or downward according to the response of the patients. The condition of the patients and the results of this study are shown in table II. In an over-all evaluation it can be seen that 76 of the 100 patients treated responded favor-

sults. Most of the patients, however, were initially given from 10 to 25 mg. of Atarax t.i.d. and had a good to excellent response without further dosage adjustment. Of the patients with anxiety combined with other conditions, such as cardiac disease, with or without hypertension, cerebral arteriosclerosis, multiple sclerosis, diabetes mellitus, colitis, and tension headache, Atarax was effective in 17 out of 24 patients. Many of the patients in this study had previously been treated with other tranquilizing preparations, but had derived little or no benefit.

SUMMARY AND CONCLUSIONS

Atarax tablets, containing 10 or 25 mg. hydroxyzine hydrochloride, were administered to 100 patients with mild to severe anxiety, depression, melancholia, and hysteria. In approximately 25% of the patients, organic diseases were diagnosed in addition

TABLE II
CLINICAL RESULTS OF 100 PATIENTS WITH ANXIETY AND
TENSION TREATED WITH ATARAX

Range of Age	Diagnosis	Range of Daily Dose/mg.	Excellent	Good	Moderate	Poor	Side Reactions	Total Patients
20-81	Anxiety	30-150	12	40	7	9	Itching in one case*	68
29-68	Depression	75-300	0	0	0	4	None	4
55-61	Melancholia	90-150	0	0	0	3	None	3
56	Hysteria	150	0	0	0	1	None	1
25-80	Anxiety plus other conditions	75-150	2	12	3	7	None	24
*Not definitely associated with the drug.							Total	100

ably to the drug. The highest response occurred in the anxiety group where 59 out of 68 patients benefited by the treatment. Although doses up to 300 mg. per day were administered to patients with depression and up to 150 mg. daily to patients with melancholia, the drug had no effect in these conditions. The same was true of one patient with involuntal hysteria. Six of the non-responding patients were psychotics who had to be committed to shock therapy. One patient (R.V.) with anxiety responded equally well to 10 mg. t.i.d. as to 25 mg. t.i.d., indicating that administration of higher doses does not necessarily result in better therapeutic re-

sults. The dosage varied from 10 to 50 mg. t.i.d. and was adjusted according to the patients response. Of the 68 patients with anxiety, 59 had a moderate to excellent response, while 17 of the 24 patients with anxiety combined with organic diseases responded favorably to treatment. Psychotic patients and patients with depression, melancholia, and hysteria did not benefit from therapy. No side effects were encountered, except slight itching in one patient, which was not definitely associated with the drug.

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Heart Massage

An unusual case of successful restoration of heart function after it had stopped suddenly has been reported. Hand massage of the heart and artificial oxygen administration, begun in the hospital ward, were continued for 10 minutes while the patient was moved "through the corridors and up four floors in the elevator" to the operating room where electric shock was administered.

The resuscitation procedure has usually been carried out in the operating room when the heart has stopped during surgery. A few "exceptional" cases have been reported in which patients whose hearts stopped while they were elsewhere in the hospital were rushed to the operating room for emergency treatment.

As each new "exceptional" case is reported, the possible applications of resuscitation outside the operating room and even outside the hospital itself increase, the physicians said in the September 8 *Journal of the American Medical Association*.

The report was made by Drs. Herschel E. Mozen, Richard Katman and John W. Martin of the University Hospitals of Cleveland and Western Reserve University School of Medicine. Dr. Claude S. Beck, noted Cleveland heart specialist, assisted them.

There is little doubt that the "death factor" is small and may be reversible in many persons who fall over dead with a heart attack. In many cases in which the coordinated heart beat is destroyed by electric impulses accumulating in the heart, the heart is anatomically sound and "ought to be able to continue beating." "Under favorable circumstances, the

heart could be given a second chance to beat and some of these people might be saved."

Their patient was a 51-year-old woman with a history of rheumatic heart disease and other heart symptoms, who had been admitted to the hospital after she had fainted at home. The following day while she was in the ward, her heart suddenly stopped beating and the muscle began twitching. The chest was opened and within two and a half minutes hand massage of the heart was begun. Artificial oxygen administration—first by the "mouth-to-mouth" technique and later by a tight-fitting face mask—was started immediately to prevent the cell damage that results if the brain is deprived of oxygen for longer than four minutes. With the oxygen system reestablished, the "emergency situation was under control," and it was decided to move the patient to the operating room for the second step—the restoration of a coordinated heart beat. Massage and oxygen administration were continued while she was moved to the operating room. One electric shock was given to the heart, and it resumed beating exactly 30 minutes after it had ceased.

The patient's recovery was uneventful except for minor complications which responded satisfactorily to treatment. She responded intelligently to questions a few hours after the attack although she had a few minor lapses of memories in the first days. She walked out of the hospital five weeks later. She had no evidence of brain damage and her heart was beating regularly, the doctors said.

Volvulus of the Small Bowel

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A LARGE PART of the practice of a general surgeon falls under the category of the acute abdomen. One of the most frequently missed diagnoses and one of the least understood problems is that of volvulus of the small intestine. This relatively rare condition produces such variety of symptoms that it is attended with perplexing histories and confusing physical and roentgenological findings. Because of these factors small bowel volvulus is not well understood nor easily recognized, and it is accompanied by a high mortality rate.

INCIDENCE

The incidence of volvulus of the small and large bowel is about 10 per cent of all cases of intestinal obstruction in this country exclusive of incarcerated or strangulated hernia^{11,12}. It is generally thought that volvulus of the small intestine is less frequent than volvulus of the large intestine^{8,13}. However, in thirty most recent cases at this hospital there were fifteen of each, and in a series of fifty-three cases analyzed by Sweet¹¹, 68 per cent were of the small bowel. The higher incidence of volvulus of the sigmoid colon in Russia and other foreign countries may result from eating more roughage and coarse foods than we do.

In either volvulus of the large or small bowel there is a definite predominance in males^{1,7}. Volvulus of the small bowel may occur at any age from the newborn to the very aged^{7,9}, and its frequent occurrence in these uncommunicative age groups adds to the difficulty in diagnosis.

ETIOLOGY

Congenital or acquired abnormalities usually predispose to this condition. It is extremely rare for volvulus of the small intestine to occur in an otherwise normal peritoneal cavity⁹. About one-third of the cases result from congenital factors such as anomalies of intestinal rotation or abnormal peritoneal bands. The majority of cases are secondary to acquired peritoneal adhesions with fixation of the bowel at a point about which it rotates.

EMBRYOLOGY

It is important to review the classical work of

From the Surgical Service of the Medical College of Virginia.

Dott² in 1923 and of Gardner and Hart^{4,5} for a clear understanding of the anomalies of intestinal rotation. Dott states that in the fifth week of intrauterine life the abdominal part of the alimentary tract is divided into three main divisions, the foregut, midgut, and hindgut. These are based on form, blood supply, and function. In *form* there are three distinct loops. In *blood supply* the foregut is supplied by the coeliac axis, the midgut by the superior mesenteric artery, and the hindgut by the inferior mesenteric artery. In *function* they are primarily digestive, absorptive and excretory, respectively. The three segments of the digestive tract, each with its own segmental blood supply, can now be pictured lying in the embryo in a straight line on a common dorsal mesentery.

The midgut, extending between the future duodenojejunal junction and the future midtransverse colon, represents the segment which undergoes that change in position in which we are most interested. One must visualize that segment elongating rapidly, buckling forward, and herniating through the umbilicus. At this point the bulging, herniated midgut rotates contraclockwise ninety degrees to lie in the horizontal plane. This completes the *first stage* of intestinal rotation at the end of two months of intrauterine life. The anomalies of the first stage of rotation are omphalocele, amniotic hernia, and exomphalos.

The most important *second stage* of rotation then proceeds with the midgut returning to the abdominal cavity while turning one hundred and eighty degrees in a contraclockwise direction, so that the cecum travels from the left lower quadrant to the right upper quadrant, anterior to the duodenum. The anomalies of the second stage of rotation can be understood by picturing deviations from this positional change. *Nonrotation*, with the return of the midgut to the abdominal cavity without the one hundred and eighty degrees rotation, leaves the cecum and appendix in the left lower quadrant, the significance of which is obvious. *Volvulus* of the midgut is predisposed by arrest of rotation so that the beginning and end of the midgut loop lie in juxtaposition. *Malrotation* is the term given to numerous deviations from the normal rotation. The anomalies

such as internal hernia and reversed rotation can be considered as such deviations.

The *third stage* of rotation of the midgut is perhaps neglected in its importance, since it represents the finishing touches in the process and its failure of completion can be disastrous (Case 1). The cecum, having reached the right upper quadrant at the end of the second stage, descends to the right lower quadrant and becomes fixed while the majority of the mesentery of the midgut becomes fixed in the final oblique line from the ligament of Treitz to the cecum. The lower duodenum, ascending, and descending colon are fixed in their normal positions. Anomalies of this stage are dependent upon the final resting place of the cecum and the appendix. Few of us appreciate the retrocecal or abnormally located appendix being an anomaly of intestinal rotation.

DIAGNOSIS

Recognition of volvulus of the midgut, either from congenital or acquired cause, is extremely difficult. The fact that it may occur in the newborn child (Case 1), in circumstances such as the postoperative patient (Case 3), and in the aged individual (Case 2) with such lethal consequences, should make one think of it in all cases of abdominal disorders. None of its features are pathognomonic but most often its picture is of intestinal obstruction⁷. Once the diagnosis of obstruction is made "there is no way for the surgeon to decide with certainty whether he is dealing with a strangulated loop or not"¹⁰. Morton¹⁰ also states, "It is well, however, for the surgeon to keep in mind in the early period of an obstruction that he probably is dealing with a strangulation as he has no means of knowing it except by exploration."

In the newborn infant intestinal obstruction is most often secondary to some congenital abnormality⁶. In order to prevent delay in diagnosis and subsequent gangrene of the bowel, one must keep volvulus constantly in mind when the infant has repeated vomiting, incurs abdominal distention, and develops obstipation. The vomiting usually is persistent and later projectile, and the first impression may be that of congenital hypertrophic pyloric stenosis. However, the fact that it occurs twenty to thirty minutes after feedings, usually later than in pyloric stenosis, and usually contains bile, helps in this differentiation⁴. If the volvulus occurs suddenly and the occlusion at the duodenojejunal junction is tight, the symptoms are more severe and blood in the stool may follow the sudden vascular occlusion and suggest intussusception. If the volvulus is lower down and involving only a segment of small bowel,

the symptoms may be later in appearance and the vomitus may become fecal. Therefore, the obscure symptomatology may delay the diagnosis until gangrene has occurred. The diagnosis in the infant is easily confused with other congenital abnormalities such as anomalous peritoneal bands constricting the bowel, various atresias, pressure from tumors, and intussusception. If volvulus or other congenital anomaly produces only partial obstruction and operation is not carried out in infancy, the symptoms may recur and persist in milder forms up to adult life.

Too often the diagnosis of volvulus is made at the operating table or the autopsy room rather than early enough to prevent its fatal results. Frequently the diagnosis is suspected, but because of the poor condition of the patient operation is not performed until the strangulated loop of bowel has become gangrenous. If the patient is relatively young and sturdy, operation may be done early for intestinal obstruction, and when the volvulus is recognized it is easily corrected before gangrene has occurred.

Early recognition of strangulation of the bowel is necessary for successful treatment. Evans and Bigger³ emphasized the dramatic onset of pain without intervals of complete freedom in the patient with strangulated intestinal obstruction. The patient is usually extremely ill and shock is thought to occur when the blood volume has dropped 25 per cent. This may occur fairly rapidly when one considers the repeated vomiting and loss of blood constituents into the lumen of the strangulated bowel and into the abdominal cavity. They³ also emphasized the fact that the patient may assume a "position of relief". Altogether, the diagnosis of strangulated bowel from volvulus of the small intestine is very difficult and one has to keep it in mind in order to avoid the catastrophic consequences.

REPORTS OF THREE FATAL CASES

Case 1—(Baby L.S.) This four pound fifteen ounce colored female infant was born after thirty-seven weeks gestation of a Gravida II, Para I mother whose prenatal course was uneventful until premature delivery was brought on by partial premature separation of the placenta. The baby was apparently normal at birth.

The baby vomited a small amount of glucose water on the second day and began vomiting greenish material on the fourth day of life. Also on the fourth day she passed four teaspoonsful of dark bloody stool. There was no evidence of shock and hemoglobin was 21.5 grams. Blood streaked stools were

passed again on the fifth day and she continued to vomit several times a day in spite of changes in feedings. The abdomen was intermittently distended but the bowels continued to move with no more blood. Bowel sounds were intermittent and absent with distention.

On the eighth day a lipiodol swallow was done showing complete obstruction at the level of the second part of the duodenum. Exploratory laparotomy was performed the same day and small bowel volvulus with gangrene of all of the jejunum and ileum except approximately six inches of the former and three inches of the latter was found. The volvulus was in a clockwise direction and the terminal ileum and cecum were found in the left upper quadrant. This was due to the twisting and not to malrotation since the hepatic flexure was in its normal position beneath the liver. Careful inspection of the duodenum was done and fluid moved freely in either direction, ruling out atresia or other anomaly in the duodenum. A resection of all the gangrenous small bowel was done and the free ends of the small bowel were then brought out as a double barrel enterostomy since primary anastomosis was not feasible.

The baby did very well for nine days after operation and was taking formula feedings well without vomiting. On the tenth postoperative day the child apparently aspirated a feeding and died.

Comment: The course of this infant before operation indicates the difficulty in arriving at an early diagnosis in infants. The numerous congenital anomalies such as atresia and annular pancreas causing duodenal obstruction also have to be considered, but anomalies of intestinal rotation are to be thought of in any infant who does not do well with feedings during the early days. In this case the volvulus apparently occurred secondary to a failure of fixation of the cecum and right colon, a failure in completion of the third stage of intestinal rotation.

Case 2. (H.B.) This 72 year old white male was admitted to the Medical College of Virginia Hospital on April 11, 1955, because of vomiting and cramping left upper abdominal pain of ten hours duration. He had a normal bowel movement early that morning. One month previously he had four tarry stools and he gave a vague history of cramping upper abdominal pain for several months relieved by passage of flatus. His general health had been good with no previous operation, but he recalled a blunt blow to his abdomen by a piece of wood fifteen years previously.

Physical examination revealed an elderly white male with cramping upper abdominal pain, moist skin, and blood pressure 90/?. There was slight abdominal distention with generalized guarding and moderate tenderness throughout. Tenderness was more marked in the left upper quadrant and later in the right lower quadrant. There was no rebound tenderness, no mass felt, and bowel sounds were hypoactive. Rectal examination was not remarkable.

Laboratory findings revealed hemoglobin of 19.6 grams, RBC of 6.44, WBC of 21,600 with 92 polys and 8 lymphocytes, urinalysis showing specific gravity 1.028, albumin and sugar one plus, and 15-20 WBC's, B.U.N. of 48 mgm%, and normal serum amylase and electrolytes.

Flat and upright x-rays of the abdomen were essentially negative. After the patient was hydrated with 1,000 cc 5% glucose the blood pressure stabilized at 110/70. The patient was taken to the operating room for proposed appendectomy, but after a test dose of xylocaine through an epidural catheter he became hypotensive. The operation was cancelled and after receiving 500 cc. blood and intravenous levophed the blood pressure was 150/90.

Twelve hours after admission the patient's condition became worse and he was again taken to the operating room. It was felt that he may have had a mesenteric thrombosis and exploration was begun under local anesthesia. The patient expired just as the abdomen was opened and 2,000 cc. of dark hemorrhagic fluid was present free in the abdomen. A volvulus of the ileum to within one foot of the cecum was found with the ileum gangrenous and twisted around an adhesion between the omentum and small bowel mesentery in clockwise direction.

Comment: This case indicates difficulty in diagnosis of the acute abdomen in the aged individual. The early development of shock in this patient should have given us a clue to the possibility of strangulated bowel, but the diagnosis of volvulus was scarcely entertained. Early operation obviously was the only possible way of helping this man, but as in many aged patients the risk of operation cannot be balanced without knowing the condition existing within the abdomen. This volvulus was secondary to an adhesion, probably acquired rather than congenital, and possibly resulting from the blow to his abdomen years before.

Case 3. (J.C.) This 41 year old colored male was admitted to St. Philip Hospital on July 5, 1955, with an incarcerated right inguinal hernia of six

hours duration. The hernia had been present for ten years and was never previously incarcerated. After he experienced cramping abdominal pain and later vomited he was referred to the hospital.

Physical examination on admission revealed a well developed 41 year old colored male in acute pain with a large (10 cm. diameter) incarcerated hernia extending into the right side of the scrotum. Otherwise physical findings were negative except for lower abdominal distention, generalized tenderness, and a few high pitched bowel sounds.

Laboratory findings were negative with a normal hemoglobin, white count, hematocrit, and electrolytes, and urinalysis was negative except for a one plus albumin.

Shortly after admission operation was performed and 40 cm. of ileum was found incarcerated in a right indirect hernia sac. After reducing the incarcerated loop of ileum and dissecting and excising the hernia sac the bowel was re-inspected and appeared hemorrhagic with four inches of gangrenous bowel. The entire hemorrhagic loop was removed and end-to-end anastomosis done. A Cooper's ligament repair was performed and the patient returned to the ward in good condition with a stable blood pressure of 140/80.

Five hours after operation the patient became dyspneic and abdominal distention progressed in spite of gastric tube suction. Several hours later the blood pressure was unobtainable and transfusion of 1,000 cc blood and a levophed intravenous drip brought the blood pressure to 110/75.

Twenty-four hours after operation there was dullness and absence of breath sounds over the right chest. Chest x-ray showed a homogeneous density interpreted as massive atelectasis and it was at this time the patient became moribund. An emergency tracheotomy was performed and the tracheobronchial tree was clear when suctioned. The patient then expired.

Post mortem examination revealed bilateral partial atelectasis with moderate bilateral pleural effusion. The abdominal cavity revealed a volvulus of the lower small bowel including the site of the ileoileostomy, with the suture line intact, but gangrene of the involved ileum.

Comment: This case presents a rare complication of volvulus in the immediate post-operative patient. It was felt that this patient may have had a leaking anastomosis postoperatively, but the occurrence of shock and abdominal distention failed to alert us to the possibility of volvulus or strangulated bowel.

SUMMARY

1. Consideration is given to the multiple confusing factors which are present when the surgeon is dealing with volvulus of the small intestine, and in turn to the high mortality rate associated with it.

2. The incidence of volvulus of the small intestine in this country is about equal to volvulus of the large intestine, and in some series³¹ is greater.

3. The etiology of the disease is reviewed with emphasis on the importance of knowledge of the embryology of intestinal rotation, not only with its relation to volvulus but to numerous surgical conditions related to its anomalies.

4. Various aspects are considered in the diagnosis of volvulus in the extreme age groups and under various circumstances, with emphasis on the need for early diagnosis of strangulated bowel.

5. Three cases are presented to illustrate the occurrence of volvulus in the various age groups, the difficulty of diagnosis leading to the high mortality rate in both young and old, and the importance of constant awareness of its possible presence when least suspected.

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Bronchial-Pancreatic Fistula

A Case Report

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MRS. F. A. S., white female age 58, was taken acutely and suddenly ill September 30, 1942, with upper abdominal pain, nausea, vomiting and syncope. She was sent immediately to the Retreat for the Sick in an ambulance. Preliminary flat films over the upper abdomen showed no air beneath the diaphragm, no evidence of gallbladder or pancreatic calculi.

October 1, 1942—Operation: Under ethylene-ether anesthesia a right upper rectus abdominal incision was made. On opening the peritoneum a large amount of sero-sanguineous fluid escaped, which inspection soon revealed to be coming through the Foramen of Winslow, and also through two necrotic openings in the gastro-hepatic ligament. The gallbladder was normal in size and appearance, and the common duct appeared normal in size. The pancreas was very large. The omentum and visceral peritoneum were covered with many fatty deposits as seen in acute pancreatitis. Two large Penrose drains were placed in the Foramen of Winslow and two through the necrotic openings in the gastrohepatic ligament above the stomach. The wound was closed around these drains.

Post-operative course: Convalescence was slow, but there was little pain and she did not appear acutely ill at any time post-operative. However, she did have a distressing cough with considerable expectoration, and there were lessened breath sounds and dullness to percussion over the entire lower lobe of the left lung posteriorly. The wound drained freely until it gradually ceased, and on October 15th all the drains were removed. On October 20th the patient was discharged to be kept under observation at home.

December 23, 1942: Patient re-admitted for study. Since October 20th her incision had re-opened spontaneously several times discharging freely a thin translucent fluid. The last time the wound re-opened a Penrose drain was placed as far into the wound as it would go, which was several inches. However, the drainage was intermittent, and the patient noticed that while the wound was draining she had no cough, but when the wound ceased draining the cough and free expectoration returned. When there

was no drainage and no expectoration she became febrile and very drowsy and the upper abdominal pain and nausea returned. She also noticed that the fluid being expectorated caused much irritation in her throat so that she became very hoarse and there was some pain on swallowing. Lipiodol was injected through the tube in the right upper abdominal incision and x-rays were taken on December 23rd.

December 23, 1942: X-Ray Report. X-ray of the abdomen and chest. Abdomen: Tube in the upper mid-abdomen just to the right of the midline; this tube extends inward and backward to the left kidney area. Injection of Lipiodol showed some of the material extending back to the kidney area and then upward into the lower left chest. Some of the solution is posterior and to the left of the spine in about the area of the 2nd and 3rd dorsal vertebrae. Chest is negative except that the diaphragm on the left side is hazy with costophrenic angle obliterated.

December 26, 1942: A soft fluctuating tumor appeared over the left kidney region in the loin. On December 27th, using novocaine infiltration, a large needle was inserted into this tumefaction and aspiration revealed a large amount of air and a little serosanguineous fluid. The tumor was incised and a small amount of the same fluid escaped. A large curved hemostat was introduced into the wound and it passed backwards and upwards several inches without meeting any obstruction. A large hard rubber drain was placed several inches into the wound and sutured in place. At the time this incision was made, the patient was running a high temperature and there was no cough and no drainage from the incision in the right upper abdomen, and temperature immediately dropped to normal.

March 5, 1943: Patient re-admitted for study. Since her last admission she has become emaciated. She has been taking pancreatic extract tablets, but, in spite of this, she suffers with diarrhea, characterized by large loose fatty stools. She has been on a low fat diet. Her wounds were still draining intermittently and expectoration has also been intermittent. When the wounds drain freely there is no expectoration, but when the drainage ceases from

this source expectoration returns. Five cc's of methylene blue aqueous solution were injected through the tube into the abdominal wound and coughed up shortly thereafter.

Patient returned home to be kept under observation.

May 6, 1943: Patient re-admitted, acutely ill, complaining of upper abdominal pain, nausea and vomiting, fever and drowsiness. There is no drain-

perature dropped to normal, and she was feeling better. Consultation notes of Dr. Bigger are as follows: "Diagnosis—Bronchopancreatic fistula—continue conservative treatment." The patient was allowed to go home.

May 31, 1943: Patient was re-admitted, acutely ill as before—drainage and expectoration had stopped.

June 1, 1943: Operation. Upper midline incision,

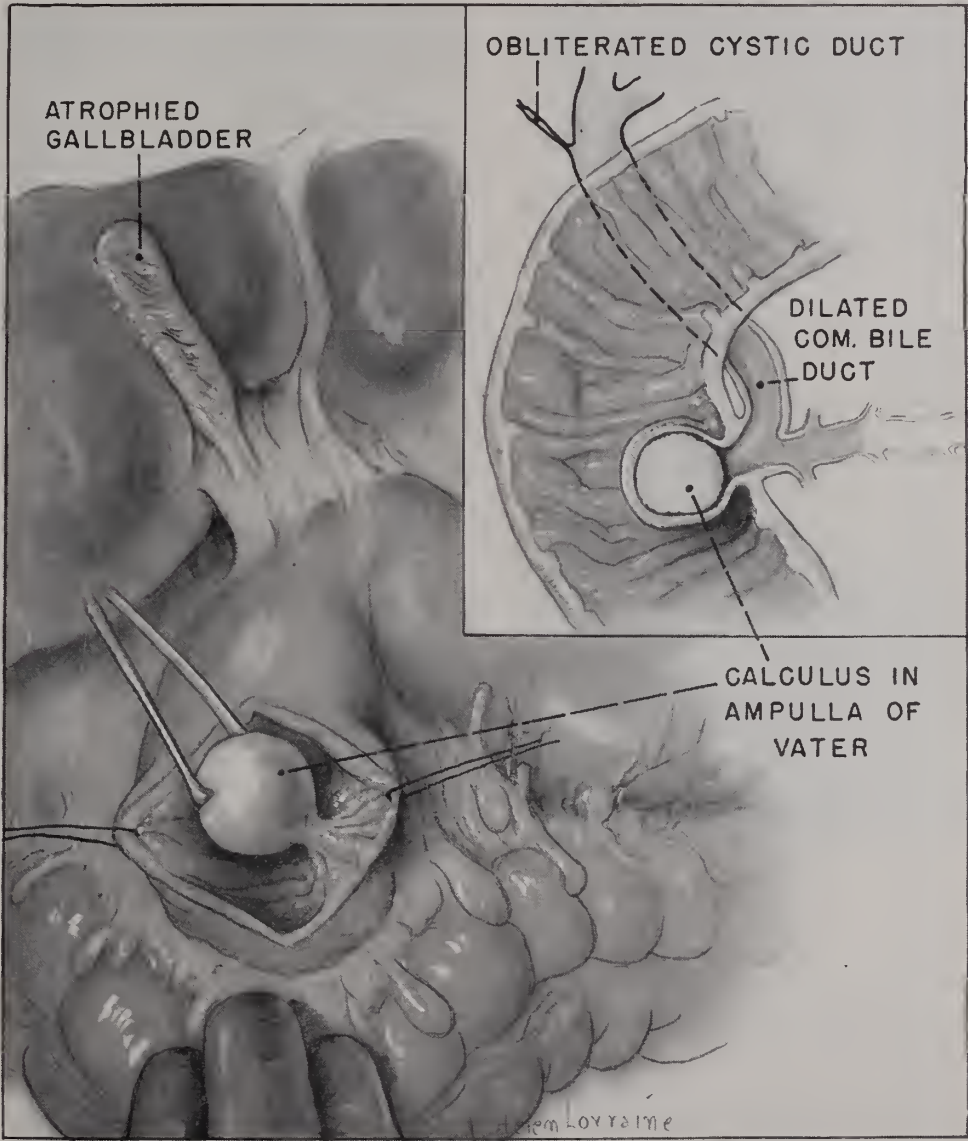


Fig. 1.

age and no expectoration. There is marked dullness to percussion and absence of breath sounds over the entire lower left lung posteriorly.

May 9, 1943: Patient seen by Dr. I. A. Bigger. A few hours before the consultation, the patient started coughing and expectorating freely, her tem-

perature dropped to normal, and she was feeling better. Many light adhesions were encountered on opening the peritoneum. These were broken down easily but adhesions around the gallbladder were so dense the gallbladder could not be visualized, but it did not appear enlarged to palpation through the adhesions covering it. At

this point the patient stopped breathing. When she was resuscitated the anesthetist was afraid to continue the anesthetic so the operation was discontinued and wound closed after placing several cigarette drains, using novocaine infiltration.

June 12, 1943: The patient was improved immediately following the operation. The wound drained freely and there was no cough or expectoration. She was allowed to go home by ambulance

June 21, 1948: Laparotomy was performed, using ether anesthesia.

Operative finding and operation: A right upper sub-costal incision was made. The abdomen was entered with considerable difficulty on account of adhesions between the stomach and peritoneum, also between the duodenum and peritoneum and the omentum. The gallbladder fossa was completely covered over by adhesions between the duodenum and



Fig. 2.—This film shows lipiodol injected through the tube in the abdominal incision. All other films have been misplaced.



Fig. 3.—This photograph shows scar from fistula over the left kidney region.

with normal temperature, and all the drains in place, with free flow of thin translucent fluid.

October 2, 1943: Since leaving the hospital, the patient has improved steadily. She is eating well, diarrhea has ceased, she has had no fever and no cough. She has gained considerable weight. The drains were gradually extruded, one or two at a time, until the last one came away on August 1st. Present weight is 104 pounds. Her weight on leaving the hospital the last time was 70 pounds.

From October 1943 until June 1948 the patient did well and gained weight from a low of 70 pounds, to 155 pounds. On June 14, 1948 she became acutely ill again.

the liver. These adhesions were freed with difficulty, and the gallbladder located and found about the size of a thumb, the cystic duct apparently being completely obliterated. Aspiration of this small gallbladder showed only clear fluid. On examination of the duodenum, a tumor about the size of an acorn was felt in the region of the ampulla of Vater. The common duct was identified with considerable difficulty, and a small hypo needle introduced. A small amount of bile, which was very light in color was removed. No stones could be found at any point in the common duct. The duodenum was then opened over the tumor and it was

found that the tumor was a stone in the ampulla about 1½ cm. in diameter. An incision was made over the stone and it was easily removed. This was followed by a flow of bile into the duodenum. A size #14 soft rubber catheter was introduced into the ampulla and passed easily into the common duct. Several cc's of bile escaped through the catheter. More bile was aspirated with a syringe. The bile did not appear to contain any mucus or sand. The bile tract was irrigated several times with normal salt solution, and then the incision in the duodenum was closed with 00 chromic catgut interrupted mattress sutures in three layers. Two Penrose drains were then placed deep in the wound, and the wound was closed in layers with 0 chromic catgut doubled, drains being brought out through the outer end of the wound. The skin was closed with black silk.

Convalescence was uneventful. The patient left the hospital June 28th and enjoyed good health ex-

cept for frequent bouts of headache and dizziness, due to hypertension, which were relieved by bed rest for a few days.

On June 24, 1956, eight years after removal of the stone, the patient died of cerebral hemorrhage at the age of 72.

I have not been able to find another such case reported in the literature. Doubtless there have been others, but apparently such a condition must be rare indeed.

Grateful acknowledgment is made to the following doctors who saw this patient with me in consultation: Drs. I. A. Bigger, A. S. Brinkley, Dean B. Cole and G. A. Welchons. The x-ray studies were made by Dr. Hunter Frischkorn, associated with Dr. Fred Hodges.

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More for Hospital Care

For the first time, Americans are spending more for hospital care than they are for physician services, according to an editorial in the September 22 Journal of the American Medical Association.

Personal expenditures for hospital services during 1955 were 3.13 billion dollars as compared with 3.07 billion dollars for physician services. These figures, which appeared originally in the July, 1956, issue of Survey of Current Business, published by the U.S. Department of Commerce, "mark 1955 as a turning point in the history of medical economics".

In 1929 it was estimated that 959 million dollars was spent for physician services, while only 403 million was spent for hospital care. By 1950, expenditures totaled 2.435 million for doctor services and 1.975 million for hospital services. In other

words, the physician's share of the "medical care dollar" declined from 33 cents in 1929 to 27.2 cents in 1955, whereas the hospital's share rose from 14 to 27.8 cents.

One reason for the rise in hospital service expenditures is that hospital services have expanded, the editorial said. More persons are hospital patients and more babies are born in hospitals. Another reason is that hospital prices have risen more rapidly than physicians' fees because hospitals are more exposed to inflationary forces.

According to the Consumer Price Index, physicians' fees in 1955 were 65.8 per cent above the 1935-39 level as compared with an increase of 237.7 per cent in the index of hospital room rates and 91.4 per cent in the whole consumer price index.

Osteoma of the Frontal Sinus

Case Report

SANTO CERRI, M.D.

WILLIAM H. PIFER, M.D.

Cincinnati, Ohio

THERE ARE in the literature many case reports of osteoma of the frontal and other paranasal sinuses. Although the histology, frequency, location, and treatment are well known, the pathogenesis is obscure.

During the past ten years at Cincinnati General Hospital, there have been nine cases of osteoma of the frontal sinus. The case with which this report is concerned, because of its size, is the only one which has required surgery, and we shall report it in detail.

CASE REPORT

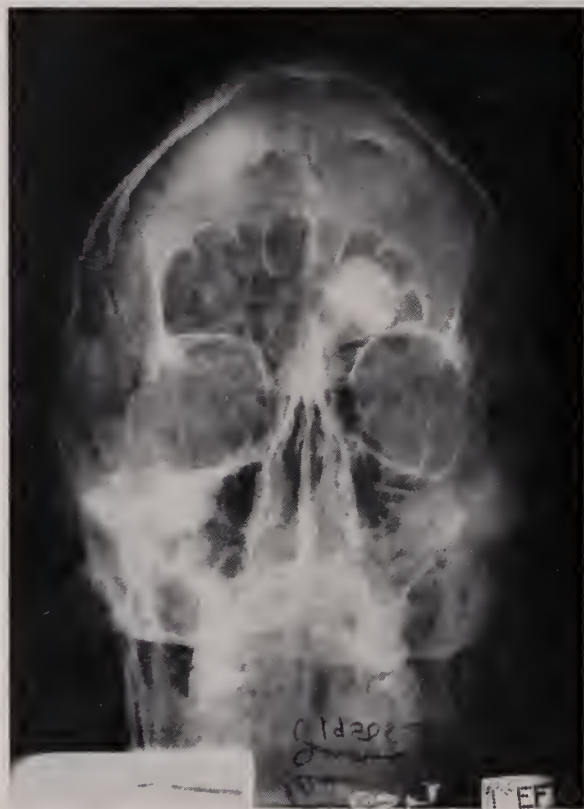
J.S., a 45 year old fireman, was first seen in our clinic in March with complaint of "stopped-up nose", post nasal drip, and slight frontal headache of two months duration. No diplopia, dizziness, edema and other symptoms had been observed. Examination of the nose revealed slight deviation of the septum to the left with injection and slight hypertrophy of the turbinates most marked on the right. A small amount of mucoid secretion was noted in the inferior and middle meati on the right. Transillumination of the sinuses revealed decreased light transmission through the right frontal and maxillary sinuses. There was no tenderness and the remainder of the examination of the head and neck was negative.

X-ray examination of the sinuses showed a large osteoma occupying most of a spacious right frontal sinus.

After medical treatment, the nasal mucosa improved, but the headache persisted. Because of the size of the osteoma and persistent headache, surgical removal was advised.

On admission to the hospital on May 3rd, history, physical, and routine blood and urine examination were not remarkable. The following day, the patient was taken to surgery and under endotracheal anesthesia, an external approach to the right frontal sinus was made. An incision was made below the medial two-thirds of the right eyebrow curving around the naso-frontal angle. The frontal bone was exposed

and the anterior wall removed preserving the supra-orbital rim. The osteoma which occupied most of the frontal sinus as a sessile mass was attached to the floor of the sinus and was removed in toto with



the gouge and mallet. No mucus or secretion was noted in the sinus, and there was no sign of erosion of the walls. The naso-frontal duct was patent and lined with normal mucosa. With a curette, the base was smoothed to healthy bone. The wound was closed in layers and the patient was returned to the ward in good condition. He was discharged on the fifth post-operative day, and has been asymptomatic since then.

PATHOLOGY

Gross—Specimen consists of an irregular bony fragment, solid, measuring 2.5 cm in diameter. The cut surface reveals a homogenous white solid appearance.

Microscopic—Section reveals dense calcified bone

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in which some of the lacunae have lost their osteocytes. The stroma between trabeculi contain loose fibrous tissue and vascular spaces. No inflammation is seen. Many of the layers of bone show diffuse dense sclerosis and some tendency to lamellation.

Diagnosis: Osteoma, Right Frontal Sinus

COMMENTS

We have reported this case, as it was the only one encountered among the nine cases requiring surgical treatment, and the only one in which symptoms were due to osteoma. The others were not operated on as they were small and were not symptomatic. In the operated case, the symptoms of headache, post nasal drip, and obstruction were mild.

In other cases reported, we found more evident symptomatology. Colver¹ reported symptoms of headache, cerebral paralysis, nasal discharge, vertigo, proptosis, and diplopia.

Childrey², however, reported some cases where the symptoms were absent or slight and stated: "Symptoms may never occur unless the tumor causes obstruction to the aeration and drainage of the sinus, presses on a nerve, or invades neighboring tissue. Symptoms depend on the direction of growth and the structures involved by it."

In the case reported by Brunner and Spiesman³, they found symptoms due to the complications such as change of personality and weakness of the left facial nerve and arm.

Very rarely, some authors report cases in which pneumocephalus was produced, thus, opening the sub-dural space with resulting rhinorrhea.

No agreement exists among authors as to the cause of osteomas. According to Carmody⁴, the most accepted opinions number five:

1. They are found at the junction of the frontal and ethmoid bones from embryonic cartilaginous cells (Arnold).
2. They generate from the frontal sinus periosseum (Fettisoff).
3. They originate from the diploe (Virchow).
4. Inflammation provides the impetus. Sinusitis (Eagleton). Tuberculosis, Lues (Cushing).
5. They are formed from ossification of polyps (Coquet).

According to Vadala⁵, we think that the osteoma can be due to a new growth from an embryonal rest. The history of our patient does not reveal any traumatic episode, but trauma may, at least, be a factor in stimulating growth. We do not feel it can be a primary cause, a view held by some authors.

Osteomas are found in all the paranasal sinuses,

but the frontal is the most common site. In the statistical report of 458 cases of Malan⁶, the frequency of occurrence of osteomas of the paranasal sinuses was: frontal 39%, ethmoid 24%, maxillary 9%, sphenoid 2%, and nasal cavity 5%.

The most common age group for occurrence of frontal osteoma is between 15 and 25 according to Guns⁷, who stated also that they are more frequent in men than women.

The usual site of attachment is at the junction of the frontal sinus and the ethmoid bone. Many other sites are also reported; posterior plate (Coates and Kruass⁸), the upper lateral wall (Goodyear⁹), and the extreme upper part of the frontal plate (Johnston¹⁰).

This tumor grows very slowly and has very little tendency to recur, but as stated by Teed¹¹, the osteoma is benign histologically but malignant clinically. The opinion of most authors is that operation should be carried out while the tumor is small, rather than after symptoms of extra sinus extension occur.

CONCLUSIONS

We have reported this case, because we believe that often mild and transient symptoms, little noted by the patient, may be the only indication of paranasal sinus pathology, particularly due to a bony mass.

For this reason, an accurate history, with a careful physical examination and proper roentgenograms should be routinely obtained in every case in which paranasal sinus disease is suspected.

Also, we report this case as we feel surgery should be performed only when the osteoma is large, even though asymptomatic, and should be avoided when it is small. In this case, because of the probable slow continuous growth of the osteoma, the patient should be re-examined yearly. This is particularly true in the young patient as growth of the tumor is more marked with youth and may even cease in the aged.

In our opinion, osteoma of the frontal sinus should be removed only when large enough to produce clinical symptoms or deformity.

SUMMARY

The authors report a case of frontal sinus osteoma with consideration of eight other cases.

The authors state that often very few symptoms are present and that only the large osteoma should be removed with careful follow-up of the small tumors.

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Tuberculosis in Elderly Patients

The most unfortunate feature of tuberculosis in elderly persons is that it usually has no distinctive symptom. The cough, sputum, dyspnoea, slight dyspepsia and a general feeling of lassitude are all put down to increasing years. It is only when sudden pain or haemoptysis occurs that the patient

becomes alarmed and seeks advice. It is then that advanced, old-standing disease is found, and the damage done from the wide distribution of tubercle bacilli from this focus of infection over a number of years can be visualized. F.R.G. Heaf, M.D., J. Royal Inst. Pub. Health and Hygiene, Nov., 1955.

Mortality from Tuberculosis

The least tangible but probably the most potent factor in the existing favorable trend in mortality from tuberculosis is the general improvement in the standard of living. Greater earning power has made possible more adequate nutrition and better housing. Reduction in the average size of families has reduced overcrowding, which in turn has lessened opportunities for the spread of infection. Where

economic levels have continued high, tuberculosis rates have fallen; when war or famine has intervened they promptly rise. It is more than coincidence that the levels of tuberculosis throughout the world are closely related to the economic level of the populations concerned. Alton S. Pope, M.D. and John E. Gordon, M.D., Am. J. Med. Sciences, Sept., 1955.

Clinicopathological Conferences

Of The Medical College of Virginia Hospital

Prepared and Edited by

GORDON HENNIGAR, M.D.

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Case #182

A 67 YEAR OLD colored female entered St. Philip Hospital with complaints of pain in her chest, cough, and shortness of breath. She professed to have been in good health until approximately four months before admission, when she developed a "cold" with a cough productive of thick white sputum. Shortly thereafter she began to notice palpitation, shortness of breath on exertion, and swelling of her ankles. Following administration of digitalis, these latter symptoms improved, but her cough continued. Approximately three weeks before admission the patient fell out of her chair, following which she had an episode of vomiting and coughing and expectorated a small quantity of blood. Following the fall she complained of intermittent pain in her left chest, at times a dull ache and at other times a sharp pain seeming to begin under the left scapula and radiating around the left costal margin to the lower substernal area. The pain occurred several times daily without relation to effort or position and lasted four to five minutes at a time. Two weeks prior to admission, cough had become more pronounced and there had been several episodes of mild hemoptysis. She had also experienced some fever and night sweats during these two weeks. She admitted that her appetite had been poor for a couple of months and she estimated weight loss at approximately 20 lbs. She had also noted some difficulty in swallowing her food and medications. She had also developed a rash on her legs which was attributed to a reaction to penicillin administered for her "cold".

The past and family histories are essentially negative.

Physical Examination: Temperature 102.4 (R), pulse 120, respiration 38, blood pressure 200/90, weight 115 lbs. The patient appeared chronically ill and showed evidence of recent weight loss. She lay flat in bed without apparent discomfort. The

mucous membranes were pale. The fundi showed marked A-V nicking. The few remaining teeth were broken, dirty, and carious. The neck veins were flat. The trachea was in the midline and no masses were palpable in the neck. Chest expansion was noticeably diminished on the left. There was marked dullness to percussion in the left chest posteriorly, below the scapula and in the axilla. Breath sounds and fremitus were decreased over the entire left chest. Medium moist rales were present in both lung bases posteriorly, more marked on the left. The cardiac PMI was in the 6th left intercostal space in the anterior axillary line. The rhythm was regular. There was a high-pitched, Grade II, diastolic murmur along the left sternal border and a short, Grade II, apical systolic murmur. A₂ was greater than P₂. The abdomen was moderately distended with hypoactive bowel sounds, but otherwise negative. There was mild sacral and ankle edema and a subacute exfoliative dermatitis of the lower legs. Pelvic and rectal examinations were negative.

Laboratory Data: Hemoglobin 9.0 grams, RBC 3,150,000, WBC 14,200 with 81 polys., 1 eos., 1 mono., and 17 lymphocytes. Urine, specific gravity 1.023 with a trace of sugar and otherwise negative. Blood sugar 107 mgm. %. BUN 17 mgm. %. Serology negative. Multiple chest x-rays in various projections revealed an 8 cm. oval mass at the left hilum which on lateral view appeared to be posterior. The left ventricle was moderately enlarged.

The morning after admission the patient was coughing more and producing thick white mucus with bright red blood clots. She had developed auricular flutter with a 2:1 block and an apical rate of 142/min. Cedilanid and digitoxin were administered cautiously during this day and by the following morning the rhythm was irregular and the apical rate approximately 100/min. A left thoracentesis was then done and 600 ccs. of cloudy yellow fluid obtained. Specific gravity 1.012, protein 4.1 grams %.

A total cell count was not done because the fluid clotted, but smears showed numerous polymorphonuclear leukocytes and were negative for tumor (Papanicolaou Class II) and acid-fast organisms. One sputum specimen was negative for acid-fast bacilli.

The patient became more comfortable following thoracentesis and coughing diminished. At 4:30 A.M. the next morning the patient was found to be resting quietly without specific complaints. At 6:30 A.M. she was found dead. An autopsy was obtained.

CLINICAL DISCUSSION

DR. F. PHILIP COLEMAN*: Since shortness of breath is one of the primary complaints in this individual, it seems pertinent to discuss the mechanism of her dyspnea. Pulmonary function can best be divided into two parts: (1) Ventilatory—The function concerned with movement of atmospheric air into and out of the lung. (2) Respiratory—The function concerned with diffusion of oxygen from the alveolar spaces into the blood, providing: a. adequate oxygenation of the blood; b. elimination of carbon dioxide.

The ventilatory aspect of pulmonary function is largely mechanical and the major symptom of ventilatory insufficiency is dyspnea. The respiratory aspect of pulmonary function is largely physiochemical and the major symptoms of respiratory insufficiency are those of anoxia, of which cyanosis is the most obvious. The symptom of dyspnea presented by this patient is primarily on the basis of interference with the ventilatory function of the lungs. There is a notable pleural effusion on the left and the mass either within the lung or mediastinum also contributes to ventilatory insufficiency. Although the hemoglobin is not extremely low, nine grams, it may well contribute to altered respiratory function in the presence of ventilatory insufficiency.

Some significance can be attached to the character of this patient's cough, for it appears intractable and uncontrolled by medical therapy during the four months of her last illness. Improvement in cough should parallel improvement of other symptoms caused by a failing heart. The cough was productive of a mucoid sputum. Cough is initiated in the majority of instances by an intrabronchial stimulus; however, extrinsic bronchial pressure, or even pressure on the recurrent laryngeal nerve may excite cough. All too often the onset of serious pulmonary or cardiac pathology is characterized by the develop-

ment of a cough which is attributed to colds, virus pneumonia, or pleurisy. Many patients with primary tumors of the lung are treated with antibiotics under these mistaken diagnoses delaying recognition of such tumors at times for months. A cough which persists for a period of three weeks or more or a change in cough habit should arouse suspicion of serious pulmonary or cardiovascular pathology.

Three and one-half months after the onset of the present illness, mild episodes of hemoptysis developed. Hemoptysis implies a break in the mucous membrane of the respiratory tree, irrespective of its etiology. Blood spitting is of serious significance and in the cancer age group implies cancer of the lung until proved otherwise. The mechanism of hemoptysis in this patient is not too obvious, but possible trauma to the chest must be considered. A fracture of the rib may lacerate the lung, or a contused wound of the lung may be unassociated with fractures of the thoracic cage and account for hemoptysis. Infection, tumors, aneurysms and cardiac disorders cause hemoptysis and will be discussed in the differential diagnosis.

Following the fall, pain developed in the left chest and was characterized by a dull ache at times and at other times it was sharp in character. The occurrence of pain several times daily, lasting four or five minutes, unrelated to effort and position, and radiating constantly around the left costal margin to the lower substernal area is not in keeping with the pain caused by rib fractures or contused wounds of the lung or pleura. Pleural pain is sharp and often fleeting in character. Dull chest pain is frequently caused by obstruction to the venous or lymphatic drainage of the lung. Saccular or fusiform aneurysms may produce a severe boring type of pain. Intractable and excruciating pain is caused by tumor invasion of the brachial plexus or intercostal nerves. This patient's pain is not only unusual but bizarre. I will ask Dr. Mandeville to interpret the radiological findings.

DR. FREDERICK MANDEVILLE*: The PA film of the chest taken on July 23 shows a distinct density, 8 cm. in diameter, which on lateral view appears to be in the superior segment of the left lower lobe. There is also a density in the region of the right subclavian artery. The arch of aorta shows calcific deposits. A.P. lordotic view minimized the importance of this subclavian density. Aneurysms have been described but were not favored. Following a tap of 600 cc. straw colored fluid from the left chest

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there is seen marked arteriosclerosis of the transverse aorta. Two days later the left lung appears congested and edematous, and a film taken two days later appears similar and there is not as much fluid in the left pleural cavity. There were no double contours to suggest aortic seepage. I would like to know what the density in the superior segment of the left lower lobe is! (Fig. 1)



Fig. 1.—Chest x-ray.

DR. COLEMAN: This patient has a good history for primary carcinoma of the lung. Cough, pain in the chest, and hemoptysis are the most common symptoms of lung cancer. She is in the cancer age group, and were it not for other obvious findings, such a diagnosis would be seriously considered from the history alone. There are both physical and roentgenographic findings diagnostic of pleural effusion on the left. Aspiration of the left pleural cavity yielded 600 cc. of cloudy yellow fluid. Pleural effusions associated with either primary or secondary tumors of the lung are not uncommon and are caused by pleural extension of the tumor, interference with venous or lymphatic drainage of the lung and pleura, or by infection. The absence of tumor cells in the aspirated fluid does not exclude a malignant lung tumor. The roentgenographic configuration of the spherical mass in the PA films, and inability to clearly define the lesion in a lateral view of the thorax is sufficient evidence for me to exclude primary carcinoma of the lung. Cancer of the lung of this size can usually be depicted with ease in the lateral chest roentgenogram.

Primary tumors of the mediastinum must be considered in the differential diagnosis. Localization of the tumor by lateral roentgenograms is of extreme importance; however, in this case the lateral view of the thorax was useless. Anterior mediastinal tumors are commonly of congenital origin, dermoid or tera-

toma. Tumors of the mid-mediastinum commonly belong to the lymphoma group and posterior mediastinal tumors are largely neurogenic in origin. Frequently, tumors of the mediastinum are sharply demarcated, rounded and circumscribed, but at other times they are ill-defined, irregular and infiltrating. The most common primary mediastinal tumors encountered in the lymphoma group are lymphosarcoma, leukemic lymphoma, chronic myelogenous leukemia and giant follicular lymphoblastoma. Hodgkin's disease, lymphosarcoma, and giant follicular lymphoblastoma usually show marked widening of the upper mediastinum on both sides and the margins of the tumor are usually discrete, smooth or nodular. One type of intra-thoracic Hodgkin's disease is characterized by parenchymatous infiltration of the lung and leads to confusion in the differential diagnosis of perihilar densities. There is no history of a Pel-Ebstein type of fever, and the roentgenograms would lead me to exclude this type of Hodgkin's disease. The leukemic group are usually associated with peripheral blood changes which aid in their identification, but they are notably absent. Neurofibroma, intrathoracic meningocele and aneurysm (fusiform or dissecting) of the posterior mediastinum may not be depicted in the lateral roentgenogram of the thorax. Intrathoracic meningoceles are usually located in the superior and posterior thorax and appear as a sharply defined density in the PA roentgenogram. Neurofibroma of the posterior mediastinum appears as a sharply defined and dense mass, but its configuration may resemble the spherical tumor in this patient; however, a neurogenic tumor of this size could likely be delineated in the lateral film.

Secondary mediastinal tumors may account for mediastinal densities of this type and are occasionally so prominent that the primary is overlooked or not considered. Malignant tumors arising in the breast, esophagus, or lung are usually the primary sites. There is a history in this patient of difficulty in swallowing her food and medication and primary cancer of the esophagus with massive mediastinal metastases must be seriously considered. If this were true, one would expect the metastatic lesions to be better delineated in the AP roentgenogram and certainly to be obvious in the lateral view of the thorax.

The patient's age, hypertension, and the associated generalized arteriosclerosis, manifested by retinal arteriosclerosis and calcific deposits in the aortic arch, is an excellent background for the development of an arteriosclerotic aneurysm. A negative serologic

test aids in exclusion of a luetic aneurysm, but arteriosclerotic aneurysms, fusiform, saccular, or dissecting are also prone to develop in this region of the thoracic aorta. A more clearly defined and dense hilar shadow in the PA view would be expected if this were an aneurysm of the saccular variety. A fusiform aortic aneurysm of sufficient size in this location to produce severe pain would likely already have obstructed the left stem bronchus. At this time I cannot properly exclude a dissecting aneurysm.

The febrile clinical course, leukocytosis and high polymorphonuclear leukocyte count certainly suggest infection, but a cough productive of only mucoid sputum does not support this contention; however, pneumonitis complicating the so-called "fluid lung" or cardiorenal disease is frequently overlooked. Tuberculosis cannot be excluded on the basis of a single sputum examination or negative pleural fluid for acid fast bacilli. The presence of polymorphonuclear leukocytes in the pleural fluid rather than a notation as to a large number of lymphocytes does not support a pleural effusion secondary to tuberculosis. The apical lesion on the right which partially cleared under non-specific medication is also contrary to the behavior of a tuberculosis infiltration. Fungous infections, Boeck's sarcoid and silicosis could possibly mimic the roentgenographic findings, but there are too many clinical manifestations which do not fit their consideration.

Soon after admission 600 cc. of cloudy fluid was aspirated from the left chest. The absence of blood in the pleural fluid excludes a generalized mesothelioma of the left pleural cavity. A roentgenogram after aspiration of the chest disclosed marked clearing in the peripheral lung field on the left with clearing of the left costophrenic sinus. The spherical mass remains but in that it does not lie in the axis of the horizontal fissure on the left the interlobar accumulation of fluid can be excluded. A study of the pleural fluid is indicative of an exudate. The specific gravity of the supernatant fluid is 1.012, and the protein content is 4.1 grams. Numerous polymorphonuclear leukocytes and clotting of the fluid is in keeping with an exudate; however, transudates with a high fibrin content will also clot on standing. The absence of organisms of either a specific or non-specific type does not exclude infection.

I would like to direct your attention now to the possible role that the heart plays in the clinical behavior of this patient. Obviously, the symptomatic complex is in keeping with cardiac failure. Improvement of symptoms by the administration of

digitalis while at home and again after her hospital admission is further proof of a failing heart. There is evidence of salt and water retention which is not uncommon in cardiac failure, irrespective of its cause. The interlobar effusion on the right, perhaps the pleural effusion on the left, the increased bilateral hilar densities (exclusive of the spherical mass on the left), and moist rales in the lung all indicate salt and water retention, so-called "wet-lung". There is also dependent edema of the extremities and



Fig. 2.—Abscess cavity with lung hematoma and rupture site.

sacral region. Attacks of syncope are not uncommon in cardiacs and may well account for this patient falling out of her chair. She was a hypertensive (blood pressure 200/90), elderly female with evidence of arteriosclerosis (marked AV nicking). There was a Grade II diastolic murmur along the left sternal border and a Grade II apical systolic murmur with A_2 greater than P_2 . Such findings are inclined to lead one such as a surgeon to a diagnosis of hypertensive cardiovascular disease with cardiac failure; however, a wide pulse pressure exists in this patient and a Grade II diastolic murmur along the left sternal border suggests aortic regurgitation. The usual causes of aortic regurgitation are congeni-



Fig. 3.—Fusiform, syphilitic, ruptured aneurysm of descending thoracic aorta.

tal heart disease, luetic aortitis, rheumatic heart disease, dissecting aneurysm of the aorta, coarctation of the aorta (15% to 20%), occasionally severe anemia, and bacterial endocarditis, acute or sub-acute. All causes of regurgitation in this patient can

be reasonably excluded except rheumatic heart disease, dissecting aneurysm of the aorta, and bacterial endocarditis. A history of fever for a period of two weeks, coupled with the heart murmurs should suggest bacterial endocarditis; however, no petechial hemorrhages in the conjunctiva or mucous membrane were noted and the fundi showed no hemorrhages. The urine was likewise negative for red blood cells but only one specimen was obtained. I believe this sufficient evidence to exclude bacterial endocarditis. Pulmonary hemorrhages are common in rheumatic heart disease (mitral stenosis) and this must be seriously considered as the likely cause of aortic regurgitation; however, it does not explain the spherical mass in the left hilar region. The heart does not have the configuration of rheumatic valvular disease and this leaves only one cause for the regurgitation, dissecting aneurysm of the aorta. This pathology explains the bizarre type of thoracic pain, fever, leukocytosis, pleural effusion, aortic regurgitation, and the elongated density in the left hilar region. Local pressure of the aneurysm likely accounts for the dysphagia, and for the intractable cough which was unrelieved by digitalization.

It is interesting to speculate on the exodus lethalis of this patient, but there are two possible causes for her death. Auricular flutter developed soon after hospital admission which was later followed by likely auricular fibrillation. Embolization secondary to mural thrombus of the left auricle would have to be considered, but rupture of the dissecting aneurysm into the pericardiac sac or pleural cavity seems to be the most likely cause of death.

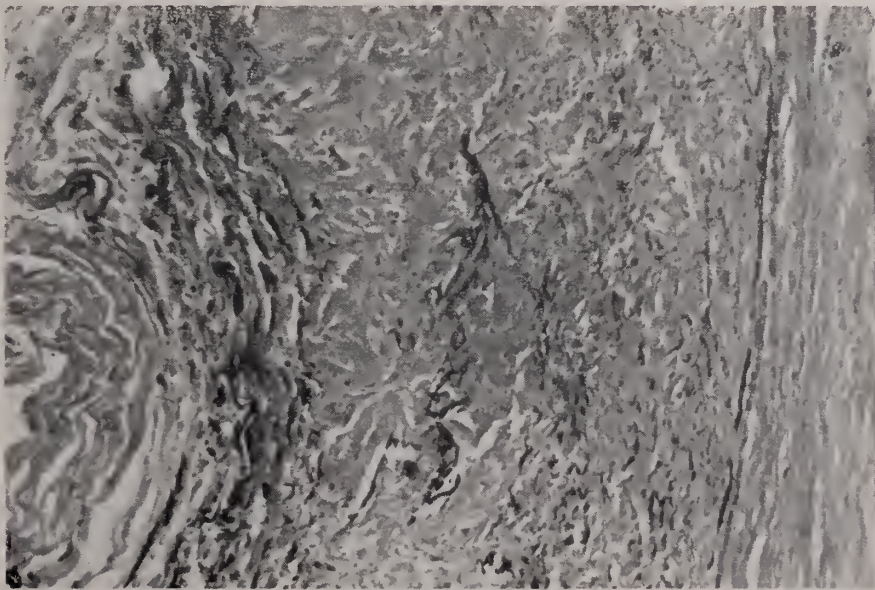


Fig. 4.—Wall of aneurysm showing loss of elastica and scarring.

PATHOLOGICAL DIAGNOSIS

Ruptured syphilitic aneurysm resulting in lung hematoma and fatal hemothorax.

DISCUSSION OF PATHOLOGIC FINDINGS

DR. GORDON R. HENNIGAR*: The heart weighed 450 grams (normal 300) caused by left ventricular hypertrophy of hypertension. Fine scarring was evident. The aortic cusps were opaque and cartilaginous in consistency with opacity of the endocardium beneath the valve ring. The former finding is interpreted as probably being old rheumatic valvulitis and the latter as the reaction to the regurgitation of the valve lesion. No rolling of the free margins of the cusps was demonstrated. The rigidity of the cusps and regurgitation would account for the systolic and diastolic murmurs recorded. The

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coronary artery tree was the seat of marked coronary atherosclerosis. It is this lesion which I feel accounted for the chest pain some weeks before admission of the patient.

The findings in the lungs were most significant in the left lower lobe, in the uppermost portion. The superior segment of this lobe contained a 5 cm. bacterial abscess of approximately 7 to 14 days duration. Throughout the entire lobe was both chronic organizing and acute pneumonia of two to three weeks duration, thereby accounting for the cough, sputum and evidence of infection, such as leucocytosis (Fig. 2). Below the abscess was an organizing and fresh hematoma containing approximately 200 ccs. of blood. This was caused by a ruptured fusiform syphilitic aneurysm of the thoracic aorta (Fig. 3). Histologically, the elastic tissue of the wall of the vessels had fragmented and was replaced by scar tissue (Fig. 4). Terminally there had been rupture of the aneurysm into the left pleural cavity with resultant hemothorax (1250 ccs.)—the probable cause of death.

Reduce Baby Mix-Ups

A procedure which would reduce the problem of baby mix-ups in hospital nurseries "to the vanishing point" was described in an editorial in the September 22 Journal of the American Medical Association.

Although confusion sometimes leads to giving the wrong baby a harmless prescription, it rarely leads to the actual exchange of babies. However, this can still happen under present identification methods. Confusion sometimes arises because two mothers in the hospital at the same time have the same surname; because a single identification becomes detached from the baby, or because parents "get to wondering after they leave the hospital how the attendants maintained the identity of the babies."

Because photographs, footprints, handprints and fingerprints cannot be considered reliable as the

sole means of identifying the newborn infant, the A.M.A. advocates that hospitals adopt the following procedure for identifying newborn babies.

Each baby should be marked in the delivery room with two identification items which carry the mother's full name, date and time of birth and some correlation with the mother such as her fingerprint. Each time the baby comes to the mother, she should be informed that it is her responsibility to identify her baby by the marking.

When the baby and mother are discharged, one of the bands should be removed, preferably by the mother. After she had properly identified her baby, the removed identification should be pasted to the baby's chart. The mother should then acknowledge in writing that this is how her baby was marked and that she identified it as hers.

MACK I. SHANHOLTZ, M.D.
State Health Commissioner of Virginia

Psittacosis

In May, 1953, there was reported the first case of psittacosis in a human being in Virginia since 1949. During 1953, three additional cases were reported. In 1954 there were twelve cases and in 1955 there were ten cases. Through July, 1956, nine cases have been reported to the State Health Department.

While the number of known cases has not been large in any one year, it is believed that the incidence of the disease has been due to exposure to infected parakeets which have become very popular pets. It is interesting to note that most of the infected parakeets have been bought from variety stores and have been shipped into the State from aviaries in other states.

Foreign Quarantine Regulations of the Department of Health, Education, and Welfare, Public Health Service, exclude the importation of psittacine birds for the purpose of sale or trade. Interstate Quarantine Regulations prohibit the interstate traffic of any psittacine bird unless the shipment is accompanied by a permit from the State Health Department of the state of destination when required by such department. Whenever the Surgeon General finds that psittacine birds or human beings in any area are infected with psittacosis and there is danger of transmission of psittacosis from such area as to endanger the public health, he may declare it an area of infection and prohibit the shipment of birds from the area.

Virginia has no regulations regarding the shipment of psittacine birds because other birds may transmit the etiological agent of the disease, which is a specific virus. Psittacine birds are parrots, parakeets, love birds, etc. Other birds carrying psittacosis are pigeons, ducks, turkeys, canaries. Infection of human beings occurs by inhalation of infected dried materials in the form of dust or from droplets coughed by infected patients. Birds that are apparently well occasionally transmit the infec-

tion. The incubation period is from 6 to 15 days, an average of about 10 days. Recently the State Health Department received the report of an infection in a child who found a dead pigeon and played with it all day, finally winding up with a funeral for the bird.

Infections are comparatively infrequent. Physicians should suspect psittacosis when there are unexplained fevers, especially those accompanying an illness with respiratory involvement. A so-called "viral pneumonia" may be a case of psittacosis. Early treatment of the patient with tetracycline, or one of its analogues, should be instituted. It is important to obtain the patient's blood serum as early as possible in the acute phase and again during convalescence to compare the two for a significant rise in antibody titer. The laboratory of the State Health Department should be contacted for instructions in regard to the examination of suspected birds and directions as to the place of shipment of the same. If suspected birds have not died they should be killed and their bodies wetted with 5% lysol solution and they should be wrapped in cloths soaked in the solution to prevent dissemination of dust and spread of the disease to those handling the carcasses. They should be quickly frozen, packed in dry ice, and shipped by Air Express to the proper laboratory for examination and diagnosis.

Emphasis should be placed on the importance of taking a careful history and the need to remember to ask if there has been exposure to birds. X-rays of the chest are helpful in arriving at a diagnosis in the human. Low antibody titers are found rather than high titers, but the significant fact is a rise in antibody titers. Always collect blood from the patient in both the acute and convalescent stages of the disease to demonstrate a rise.

All persons who acquire birds as pets or who work with them should be aware of the risk of psittacosis.

JOSEPH E. BARRETT, M.D.

*Commissioner, Department Mental Hygiene
and Hospitals*

Internships in Abnormal Psychology

In September, 1953, the College of William and Mary and Eastern State Hospital instituted a joint work-study plan, combining graduate study at the College with an Internship in Abnormal Psychology at the Hospital. In return for half-time work at the Hospital, the interns receive a stipend sufficient to cover basic living and college expenses. The program leads to the M.A. degree and is designed to provide a broad background in general, experimental and abnormal psychology to students who expect to continue graduate study beyond the Master's level at other institutions. It is not intended to be a training program for psychometricians or other psychological technicians, but rather to serve as a sound basis for further professional education. A maximum of two students are accepted each year.

The work assignments of the interns in the Hospital have been flexible, the major criterion being the effort to provide the students with broad introductory experience in all departments of the Hospital in which their education may be furthered while at the same time their services can be useful. In general, first year students have spent a period of approximately three months each in the Nursing Service, in Social Service, and in Occupational or Recreational Therapy. The Psychology Department at the Hospital assumes general supervision, but direct supervision is exercised by the heads of the various departments. The second year is spent entirely in the Hospital Psychology Department.

The interns thus far have been assigned first to the Nursing Service where they work on the wards in the capacity of attendants. Their work is varied as much as possible in order to enable them to become familiar with all aspects of the treatment program. They assist with electroshock, insulin and other special therapies as well as with routine ward duties. They have the opportunity to observe individual patients over a long enough period to become thoroughly familiar with them and to appreciate the changes which take place from day to day. The students have uniformly reported that they considered

such experience of great value, regardless of what field of psychological work they later plan to enter. For the neophyte clinical psychologist, its value is, of course, inestimable.

The second placement for the typical student is in the Social Service Department, where he serves as a Social Service aide. Here the students have an opportunity to become familiar with the problems created for (and sometimes by) the families of the mentally ill. Under the supervision of the Social Service Director, they interview relatives and learn something of the fundamentals of taking case histories. They have an opportunity at least to observe, and occasionally to participate in, other activities of the Social Service Department such as field investigations, placement, and after-care clinics. This experience enables the interns to view patients, not just as isolated individuals, but as a part of a particular social matrix.

The interns' work under the supervision of the Occupational Therapy Department varies with the interests and aptitudes of each student and with the needs of the department at a given time. One student spent the major portion of his O.T. assignment developing a soft ball program, including an "All Star" team which participated in the City Soft Ball League. Another is currently serving as assistant teacher in the Children's Unit. In both instances a valuable contribution to the Hospital has been made, and the students have benefited by the opportunity to work with patients in groups.

The work in the Psychology Department during the second year also varies with the student's interests and abilities. At present, there is one student in this stage of training. He administers intelligence tests, assists with group therapy in the Children's Unit, and participates in research projects conducted by various staff members.

Thus far, the program as outlined appears to have been a successful combination of graduate study and practical experience with the mentally ill. The students who have participated have uniformly felt their hospital experience to have been a valuable one. The various department heads who have supervised the interns report similar satisfaction with their contribution to the therapeutic program of the Hospital.

Contributed by ELIZABETH WILLIAMS, M.A., *Acting Chief Psychologist, Eastern State Hospital, Williamsburg, Virginia.*

What's Cooking in Medical PR?

Again I had the great privilege of attending the Public Relations Institute of the American Medical Association, which was conducted at the Drake Hotel, Chicago, August 29 and 30. Virginia was well represented at this conference by Dr. W. H. Barney, Chairman of the Public Relations Committee of the Lynchburg Academy of Medicine, Dr. Harry C. Bates, Chairman of Public Relations of The Medical Society of Virginia, Mr. Bob Howard, Executive Secretary, and Mr. Ed. Smith his assistant, and, of course, last but not least, yours truly.

The theme of this meeting was, as shown in the title, "What's Cooking". The local color and scenic effects were perfect. The stage was decorated to represent an old fashioned kitchen in every detail. The old wood range, table, side board, churn, in fact, there was nothing like it.

Every subject discussed was discussed by men of national importance.

Beginning August 29, there was a discussion concerning "Local Science Fairs", which was also entitled "the 1956 PR Plum". The Head Chef for this discussion was John E. Farrell, Executive Secretary of the Rhode Island Medical Society. Appearing on this panel were Joseph H. Kraus, Coordinator, National Science Fairs, James G. Burch, Director of Public Relations, Connecticut State Medical Society and Ralph Eades, Past-President, Porter County (Indiana) Medical Society. He was the only Doctor who appeared on this portion of the program.

Following this discussion, there was a very interesting part of the program, labeled "Cooking School" and under this heading there were discussed "Lessons for the Medical Society Newcomers". Head Chef for this part of the program was Hugh Breneman, Public Relations Counsel, Michigan State Medical Society. During this part of the program, the phases of how the state handles the lessons for the new members of the medical society was discussed by Edward Clancy, Director of Public Relations, California Medical Association and John W. Pompelli, Executive Assistant Colorado State Medical Society. In getting down to the local level of how county societies handle the lessons of the newcomer, this was discussed by Millard J. Heath, Executive Secretary, Dallas (Texas) County Medical Society, and Harry A. Lehman, Executive Secretary

Jefferson County Medical Society of Louisville, Ky.

Following each of these presentations, there was a question and answer period. The morning session was concluded by the premiere showing of The Case of the Doubting Doctor, which dealt with the American Medical Association representation of a new membership indoctrination film. This film will be available for state and local societies and I can heartily recommend it as being of extreme value. I earnestly hope that many of our chapters, both in General Practice and the component chapters of The Medical Society of Virginia will avail themselves of the opportunity of obtaining this film for showing at local medical meetings.

Following the showing of this film we had a delicious luncheon at which Head Chef Percy E. Hopkins, M.D., Chairman, Committee on Public Relations and Medical Service, Illinois State Medical Society, presided. The chief, and only after lunch speaker was David C. Phillips, Head, Department of Speech and Drama, University of Connecticut who talked on "Communicating Through Effective Speaking".

In my personal opinion, there are very few in our chapter who could not improve their public speaking. I am referring principally to the one and only Ed Haddock, who in my opinion is the best public speaker that I have ever had the privilege of listening to. Ed, surpasses anybody that I have ever known and I feel that he among all of us would have gathered very little from this meeting, but I think that the rest of us could really have gained some pearls of knowledge had we attended this luncheon.

Following the luncheon, there was a program on "Public Relations Recipe Contest", at this the Head Chefs were C. Lincoln Williston, Executive Secretary, Texas Medical Association and Richard G. Layton, Assistant Executive Secretary, Oregon State Medical Society. The subjects of recipes discussed were Family Health Record, Newspaper Advertising Series, Improving Doctor-Lawyer Relationships, PR Potential of Medical Detail Men and Working with the Medical School, Promoting the Opening of a New Headquarters, A Society-Sponsored Safety Program, Medical Society Representation in Health Organizations, Planning a Centennial Celebration, PR Value of Lay Awards, A Poison Control Program, Pre-Med Day for High School Students, Public Relations and

Rural Health, New Looks at School Health, Profiting from a Doctor Distribution Survey and the final discussion was Manning Health Exhibits.

As you can see from the subjects covered in this afternoon session, there was very little of importance that was left out. In fact, we gathered so much knowledge, that at 5:30 we had to have a cocktail party because it was the cook's night out. Believe me, judging from the material served at that cocktail party, if the cook had been present, I don't know how we would have stood it.

Beginning at 8:30 on the morning of the 30th, coffee and hot rolls were served from 8:30 until 9:15, at which time the program really got under way with the Legislative Stew and What Are the Best PR Ingredients. The Head Chef for this part of the program was George H. Saville, Assistant Executive Secretary, Ohio State Medical Association. Under his program was discussed, Keeping on Top of Routine Legislation, and on this part of the program the cooks were Dr. W. Harold Parham, Public Relations Supervisor, Florida Medical Association, Walter L. Portteus, M.D., Past-President of Indiana State Medical Association, and John F. Kiser, Assistant Executive Secretary of the Medical Association of Georgia. These men gave us considerable information and help during their discussions.

Following this, there was discussed, Blueprints for Specific Campaigns and on this part of the program, the chief speakers were Glenn W. Gillette, Associate Director of Public Relations, California Medical Association, who discussed the Trouble in Visalia. Chiropractic Legislation was discussed by Martin J. Tracey, Field Representative, Medical Society, State of New York and Repealing Naturopathic License Law, was discussed by M. L. Meadors, Executive Secretary, South Carolina Medical Association.

The latter part of the morning program, was entitled, "What's Cooking for 1957", Head Chef for this part of the program was Leo E. Brown, Director of Public Relations American Medical Association, and anyone who has ever attended a program presided over by Leo Brown knows that it is complete in every respect. During this symposium, there was discussions on the National Fire, by Ernest B. Howard, Assistant Secretary, American Medical Association, on the State Society Fire, by Lester H. Perry, Executive Secretary, Medical Society of the State of Pennsylvania, Donal L. Taylor, Executive Secretary, Iowa State Medical Society and the final discussion was on the County Society Fire with Steve Yates, Executive Secretary, Jefferson County, Birmingham,

Alabama Medical Society and Harold N. Howell, Executive Secretary, Medical Society of the Counties of Oneida, Herkimer and Madison of New York State.

When this was over, we had absorbed about all we could for the morning session and then enjoyed a delightful luncheon at which the head chef was Stephen T. Donohue, Assistant Director, Department of Public Relations, American Medical Association. The Chief Speaker and only speaker on this luncheon portion of the program was Robert W. Gentry, M.D., Los Angeles, Chairman, Physicians Advisory Committee on Television, Radio and Motion Pictures, American Medical Association, who discussed The Medical Profession and Network Television.

The final and afternoon portion of the program was designated Radio Television Workshop on Local Programming. The head Chef on this part of the program was James R. Fox, M.D., Radio-TV Coordinator, Minnesota State Medical Association. The following subjects were discussed, Initiating a Radio or Television Health Series, by James H. Gosman, M.D., Chairman, Public Relations Committee, Indianapolis Medical Society, Production Plans and Source Material, In Radio Shows, by John C. Kadonsky, Public Relations Manager, Medical Society of Milwaukee County and In Television Shows, John F. Rineman, Staff Assistant, Medical Society of the State of Pennsylvania. Also, there was discussed, Putting the Show on the Air. Concerning this program the principle speakers were Sheldon Goldstein, Director of Radio-Television, Station KUOM, University of Minnesota, Dr. Robert C. Parkin, Assistant to the Dean, University of Wisconsin Medical School who discussed Some Examples of Successful Shows, and Warren Bush, Director, Television Station WXIX, who discussed Television Programs.

The final portion of the evening program was Kinescope Examples of Local Programming. This was discussed by Ray Stewart, Director of Public Relations of the Iowa State Medical Society. Following this there was a question and answer period and then the meeting adjourned.

One of the final discussions of this program of the conference was that the A.M. Radio concerning ancient medium was on the way out and it was to be replaced by F.M. and T.V. They also stated that two great medical shows had been completed in the United States. One was the National Democratic and the other was the National Republican conventions. Also, we were informed that there was to

start soon this fall another series of Radio and Television programs entitled Black Medicine, which dealt with medical quackery. The other program which

is to start this fall and will be available for local and state medical societies to sponsor is entitled your doctor advises.

JOHN WYATT DAVIS, JR., M.D.

County Society Officers' Conference



Featured on the program of the County Society Officers' Conference were left to right: Chuck Davey, former welterweight contender and now an insurance executive, Detroit; William L. McGrath, Employer's Delegate to ILO, Cincinnati; Dr. William Kennard, Assistant Director, AMA Washington Office; Dr. John Wyatt Davis, Jr., Vice-Chairman, Public Relations Committee, The Medical Society of Virginia, Lynchburg; John O. Moore, Director, Cornell Uni-

versity Crash Injury Research Project, New York, and Dr. Harry C. Bates, Jr., Chairman, Public Relations Committee, The Medical Society of Virginia, Arlington.

Many of the paper presented at the Conference will be published in the Virginia Medical Monthly, and the membership is urged to give them special attention.

Study Patient As A Whole

Physicians today are giving more and more attention to treating patients as a whole; not the disease alone. The nation's 76 approved four-year medical schools are recognizing this fact, too.

A recent report by the American Medical Association says that greater emphasis is being placed on such factors as the patient's emotional tone, conditions of employment, habits of living and other

features of daily life "which often determine proper diagnosis, treatment and prevention."

Knowledge of the patient, it is felt, may lead to more accurate diagnosis of the disease. Not only the diagnosis but also the treatment of the patient can be determined by knowledge of his constitutional make-up.

Woman's Auxiliary . . .

New President

Alice Liggan, nee Alice Heckler, born in Richmond, attractive and busy wife of Dr. Lee S. Liggan—one of Lancaster County's most beloved and outstanding physicians—was installed as president of the Woman's Auxiliary to The Medical Society of Virginia in October.

Gifted and talented in so many ways, we, who have watched her many and varied interests and activities, have marveled that "One small head could carry all she knew". When this new honor was bestowed upon her, she will, in turn, bring honor to the Auxiliary.



MRS. LEE S. LIGGAN
President, Woman's Auxiliary

After a happy girlhood spent in Richmond, she married Dr. Liggan, veteran of World War I, who served with honor with Base Hospital No. 45. Their home was brightened by the arrival of a little daughter in 1926 who "entered spotless on eternal years", in 1928. After this Mrs. Liggan took a chemical laboratory technician's course in order to be of help to her husband in his office. She also assisted in clerical and secretarial work.

Not long after this, a son was born to Dr. and

Mrs. Liggan and today they are happy grandparents of two little grand-daughters. It is nothing but a pleasure for her to travel two hundred miles to babysit with them!

In 1934 Dr. Liggan decided to live in Irvington and one has only to enter their home to realize that before all else in her busy life, Mrs. Liggan places the welfare of her home and its occupants.

She is a devout member of the Methodist Church where she has served as Superintendent of the Children's Division, Superintendent of Young People's Division, Secretary of Student Work for the Rappahannock District, President of the Woman's Society of Christian Service and in other offices.

After moving to Lancaster County, her friends urged her to hold classes in Expression and Voice, and, realizing how gifted she was, various clubs claimed her time and talents. She served as President of the Woman's Club of Lancaster County during war years when only by her never failing will and interest, the club was able to function well and do its part in war time activities. Kits were made for women in the service; she had service women speak before the club on women's obligations in time of war, and a booth to secure women volunteers was put in operation under her direction.

She served as Chairman of Salvage Collection in Lancaster County, was Chairman of Irvington Branch, A.R.C., completed A.R.C. Home Nursing Course, took training for a medical aid, collected clothing for Bundles for Britain and was a member of its Fund Raising Committee. She served as a member of the Advisory Council of the Civil Air Patrol, was a member of its State Advisory Council and served as a plane spotter.

She was three times president of the Woman's Auxiliary, Adams Post Number 86 American Legion, and also served as chairman of its various committees. She is past president of the Parent-Teachers Association of Irvington and Chairman of the Woman's Auxiliary to the Rappahannock River Yacht Club.

Later on she became interested in the work of The Order of the Eastern Star, in which her work was also outstanding and her record impressive—Past Matron, K. C. Chapter Number 5, Past Grand Matron of the Grand Chapter of Virginia, and since 1953, Grand Lecturer.

Now we come to her record in the world of medi-

cine—President of the Woman's Auxiliary to the Northern Neck Medical Association, Vice President and Recording Secretary and now President of the Woman's Auxiliary to The Medical Society of Virginia.

Having had the pleasure of knowing her well and watching her in sickness and health, so filling her life with things worthwhile that there were no dull days, always giving help and encouragement to others who found them dark, we, her host of friends, wish her well as she takes her place as President of the Auxiliary. Those of us who are members of the Auxiliary and other organizations to which she belongs want it known that in the many years of the past "None have known her but to love her and none have named her but to praise."

ELIZABETH COMBS PEIRCE

Alexandria.

This Auxiliary, under the leadership of Mrs. James B. Gilbert, held its opening meeting on September 25th at the home of Mrs. Adrian J. Delaney. The speaker was Dr. John E. Zearfoss, advisor to the Auxiliary from the Alexandria Medical Society.

A luncheon for prospective members was held recently at the home of Mrs. Richard E. Palmer.

The annual dinner-dance, sponsored by the Auxiliary, will be held on November 3rd at the Belle Haven Country Club. The Auxiliary will also sponsor a play by the Little Theatre of Alexandria on November 29th.

Officers for this Auxiliary are Mrs. Gilbert, president; Mrs. H. Glenn Thompson, vice-president and president-elect; Mrs. John C. Watson, treasurer; Mrs. Robert H. Anderson, corresponding secretary; Mrs. William H. Young, Jr., recording secretary, and Mrs. William J. Weaver, parliamentarian.

MRS. CLIFFORD A. WEBB, *Publicity Chairman*

Southern Medical Association.

This Association will celebrate its Golden Anniversary in Washington, D. C., November 12-15. The Mayflower Hotel will be headquarters. Please make plans now to attend this wonderful meeting and enjoy all the many social events planned as well as the scientific exhibits.

Isn't this the most excellent opportunity to renew old acquaintances and make new friendships while enjoying the good times being planned for us by Mrs. Hunter and her co-workers in Washington. Also it will be such a thrill to visit all the interesting sights of our own Capitol City.

Graduate Training

One in seven physicians in this country is taking graduate medical training either as an intern or a resident. According to the annual report on internship and residencies, prepared by the American Medical Association's Council on Medical Education and Hospitals, the number of medical school graduates taking further training continued to increase in 1955-56. (J.A.M.A., September 15, 1956)

There were 9,603 graduates serving internships in 1955-56, an increase of 537 over 1954-55, while 21,425 were serving residencies, an increase of 931 over the preceding year. The training was offered by 1,373 council-approved hospitals.

Eighty-three per cent of all available internship positions were filled last year as compared with 82 per cent in 1954-55. The percentage of filled residency positions also increased from 80 to 81 per cent. The slightly higher rate of filled positions is accounted for by the number of foreign medical school graduates taking training in American hos-

pitals, the report said. Approximately half of all positions not taken by American graduates are filled by foreign graduates.

Since 1914 there has been an increase of 44 per cent in the number of approved hospitals and an increase of 275 per cent in the number of internships offered.

There has been an increase in the average monthly cash stipend paid to interns. Hospitals affiliated with teaching institutions raised their stipends from an average of \$87 in 1954 to \$121 in 1955, while nonaffiliated hospitals raised theirs from \$136 to \$169. Financial consideration was thought not to be a decisive factor in choosing an internship, since the affiliated hospitals had more positions filled than did nonaffiliated hospitals.

The council now approves residencies in 30 specialties and sub-specialties, including aviation medicine which was added last year.

Book Announcements . . .

Books received for review are promptly acknowledged in this column. In most cases, reviews will be published shortly after the acknowledgment of receipt. However, we assume no obligation in return for the courtesy of those sending us same.

Of Water, Salt and Life. An Atlas of Fluid and Electrolyte Balance in Health and Disease. Lakeside Laboratories, Inc. Milwaukee, Wisc. 1956. 72 pages with 31 color plates. Cloth. Price \$7.50.

Observations on Kreziozen in the Management of Cancer. A. C. IVY, Ph.D., M.D., Distinguished Professor of Physiology and Head of the Department of Clinical Science, University of Illinois, etc. JOHN F. PICK, S.B., M.M., M.D., Head of the Department of Plastic Surgery, Columbus Hospital, Chicago, etc. W. F. P. PHILLIPS, M.D., Department of General Practice, St. Francis Hospital, Evanston, Ill. Henry Regnery Company. Chicago. 1956. vii-88 pages. Illustrated. Cloth. Price \$2.50.

J.A.M.A. Queries and Minor Notes. Published for the American Medical Association by The C. V. Mosby Company, Saint Louis. 1956. xviii-334 pages. Cloth. Price \$5.50.

Internal Secretions of the Pancreas. Volume IX of Ciba Foundation Colloquia on Endocrinology. Editors for the Ciba Foundation, G. E. W. Wolstenholme, O.B.D., M.A., M.B., B.Ch., and Cecilia M. O'Connor, B.Sc. Little, Brown and Company. Boston. 1956. xii-292 pages. With 100 illustrations. Cloth. Price \$7.00.

Ageing in Transient Tissues. Volume 2 of Ciba Foundation Colloquia on Ageing. Editors for the Ciba Foundation, G. E. W. Wolstenholme, O.B.E., M.A., M.B., B.Ch., and Elaine C. P. Millar, A.H.W.C., A.R.I.C. Little, Brown and Company. Boston. 1956. xi-263 pages. With 96 illustrations. Cloth. Price \$6.75.

Organized Home Medical Care in New York City. A Study of Nineteen Programs by the Hospital Council of Greater New York. Published for The Commonwealth Fund by Harvard University Press, Cambridge, Mass. 1956. xvi-538 pages. Cloth. Price \$8.00.

Chronic Illness in The United States. Volume II. Care of the Long-Term Patient. Commission on Chronic Illness. Published for The Commonwealth Fund by Harvard University Press, Cambridge, Mass. 1956. xv-606 pages. Cloth. Price \$8.00.

Dictionary of Poisons. By IBERT MELLAN and ELEANOR MELLAN. Philosophical Library. New York. 1956. 150 pages. Cloth. Price \$4.75.

Histamine. Ciba Foundation Symposium Jointly with The Physiological Society and the British Pharmacological Society. In Honour of Sir Henry Dale, O.M., G.B.E., M.D., F.R.C.P., F.R.S. Editor for the Ciba Foundation, G. E. W. Wolstenholme, O.B.E., M.A., M.B., B.Ch., and Cecilia M. O'Connor, B.Sc. Little, Brown and Company, Boston. 1956. xvi-472 pages. Cloth. With 133 Illustrations. Price \$9.00.

This is a verbatim recording of a four day session on histamine, a symposium sponsored by the CIBA Foundation. Participants in the conference are the principle workers in the field in Britain, plus invited representatives from the United States and the Continent. The subject is considered from the investigator's point of view and therefore the book will be of most value to those interested in histamine research or the hypersensitives.

The distribution of histamine in the body and its relationship to mast cells are described. Mechanics for promoting release of histamine from combination in the tissues to a free state, in which it can exert its customary affects on capillary walls and smooth muscle are considered. There is considerable discussion of certain simple chemical compounds capable of releasing histamine, all of these being classified as organic amines. Certain side reactions of various commonly used drugs, such as stilbanidine and apresoliné, are due to such action. Nasal stuffiness and vasodepressor reactions are common expressions of this. Similarities and differences in the mechanics of histamine release by simple chemical compounds and by the anaphylatic reaction are noted. A good deal of attention is given to the controversial subject of whether or not the proteolytic activity brought about by antigen-antibody reactions contributes to the histamine release.

The metabolic fate of histamine, and of histidine, its precursor, are thoroughly discussed. The normal physiological role of histamine in the tissues remains uncertain, though its influence in HCl secretion by the stomach, and in controlling membrane permeability by modifying surface tension phenomena is discussed.

The relationship of the antihistamines to histamine is considered only briefly and sporadically. These drugs appear to influence the function of histamine only in the free state, after the histamine has been released from its cell bound position. Further, note is made that antihistamines may in some instances act as histamine releasing agents, which fact may partially explain the difficulties one has in treating asthma with these drugs.

JOHN VAUGHAN, M.D.

A Man You Should Know—Your New President

DID YOU know that your incoming president, Dr. James Davis Hagood of Clover, Virginia, is one of the famous physicians in the history of our State? At the present time he is one of the top advisors to the Governor of Virginia, chairman of the Senate Finance Committee in the State Legislature, a member of the Board of Visitors of the Medical College of Virginia, as well as being the only physician in this State who has ever been awarded the honorary degree of "Master of Science in General Practice" (MCV-1950). Much of the legislation which benefits our patients and our profession has emanated from the State Legislature through the hands and head of Jim Hagood. He was one of the founders and early president of the Virginia Academy of General Practice. He has the sole distinction in this State of being the only



JAMES DAVIS HAGOOD, M.D.
President, The Medical Society of Virginia

physician ever twice elected as the "General Practitioner of the Year". In 1950 he was among the top contenders for this honor on the national level.

But his past is just as interesting as his present. He was born in Mecklenburg County, Virginia, on November 4, 1889. He is the son of a county merchant and farmer, and attended school in Mecklenburg and at Warrenton Academy, Warrenton, North Carolina, graduating in 1908.

He entered the University College of Medicine in Richmond in the Fall of 1908, but was forced to leave college for one year because of poor health. Able to continue

his studies again, he returned to college in 1911 and was graduated in medicine in 1913. He was president of his senior class—incidentally the last class at the University College of Medicine before its consolidation with the Medical College of Virginia the following year.

He served his undergraduate internship at the Old Retreat for the Sick Hospital in Richmond and continued his internship after graduation until 1913. Hard pressed financially, he decided in October 1913 to "get out and make a living".

With horse and buggy and \$50.00 worth of drugs purchased on credit, he made his way to Scottsburg in Halifax County and started practice. Beginnings in Halifax were very meager indeed. Unfortunately for the new doctor, in 1914-15, there was a crop failure in the small agricultural village of Scottsburg and bills were often paid in produce and horse feed as well as cash. His net earnings in cash for his first year was \$114.00.

He made most of his calls over rough and muddy roads by saddle horse and by buggy in those first years. He tells that because of the difficulties of the roads, seven doctors then did the work that two are able to do now. Although a Ford automobile was acquired in 1914, it was not usable more than four months of the year—horse and buggy were a must for the other eight months.

Although he has never specialized in obstetrics (or anything else) he has delivered over 3,500 babies. During the first World War he served as Health Officer for the town of South Boston, as a part time job while he was carrying on his practice in Scottsburg.

In 1918 Dr. Hagood was appointed member of the School Board of Halifax County and served until 1932 when he was elected Chairman of the Board of Supervisors and served until 1942. During World War I, while rejected for active service in the Armed forces, Dr. Hagood served as Chairman of Medical Advisory Board No. 7 which was composed of Charlotte and Halifax Counties.

In 1917 in the early days of his practice, Dr. Hagood married Eleanor V. Bustard, of Scottsburg. The first Mrs. Hagood died in 1934. He married again in 1938 to Carrington Irby, a widow, with two children.

He is still very actively engaged in general practice in Halifax County. He was joined by Dr. William J. Hagood in 1946 and Dr. Warren Hagood in 1954. These two nephews have enabled him to spend more time in his favorite hobbies, politics and farming, but nothing will ever take him from his first love—that of a rural family physician.

EDWARD E. HADDOCK, M.D.

The R. M. H.

THE FIRST HOSPITAL in what is now continental U.S.A. was built in Virginia at Henricopolis in 1612. The oldest American hospital for the exclusive care of the insane was built in Virginia in Williamsburg in 1773, and the first hospital to be devoted to the care of the Negro patient of unsound mind was built in Virginia in Petersburg in 1870. These pioneer undertakings were notable accomplishments in their day. But prideful Virginians no longer need look backward. New state-wide hospital construction—at Staunton, Petersburg, Fredericksburg, Farmville—is fast eliminating what has long been a serious handicap in the bed care of sick people in this State. The Richmond Memorial Hospital, expected to open its doors for the reception of patients about the first of the year, is the latest product of this progressive movement.

Here is a brand-new, five-million-dollar, seven-story, four-hundred bed, sixty-six basinette, suburban, open-staffed, general hospital, the result of a happy combination of public subscription and Federal subsidy. The capital city of Virginia, with a metropolitan population of over 300,000, has long been a victim of hospital bed

deficiency and proprietorship in the allotment of available beds. This institution should change all that. Moreover it is said to offer features and facilities unmatched by any other hospital in the area. It is located in a spacious arboreal setting, easily accessible, with adequate parking space scientifically laid out. Completely air conditioned and supplied with the newest equipment for diagnosis and treatment, it is served by many up-to-date subsidiary facilities, typified by its mechanized kitchen and intramural laundry.

Two innovations have been built into the hospital—the parallel double hallways on each floor, and the concentration on one floor of all major diagnostic and therapeutics services—operating, delivery and emergency rooms, x-ray and physical therapy departments and laboratories, as well as the admitting office. One can count on the fingers of one hand the hospitals of the United States that can claim these time- and step-saving economy features.

Here is an institution representing not only the last word in hospital construction and equipment, but one dedicated to the high principle of caring for the sick without the handicap of special interests such as state control or private ownership. Here is a modern community hospital, serving all its people without regard to race or creed, open to all its doctors whose standards of education and training entitle them to practice within its walls. To date the applications to practice here of more than three hundred doctors have been received and approved by the directors of the hospital.

A new general hospital of this character needs the loyal and enthusiastic support of the doctors who serve it. It needs also the zestful cooperation of the hospitals in the area. With the bed deficiency that has long existed in Richmond there is little ground to fear that this will become a competing institution. With the pressure off them, existing hospitals should be able to do a better job. Administration and staff must have also the most intimate relations with the hospital of the Medical College of Virginia, for there diagnostic and research and therapeutic procedures beyond the scope of even this new modern general hospital are available.

Not the least important, the hospital must have the continuing loyalty and support of the citizens of Greater Richmond. After all it is their hospital. It will prove a pride and a rewarding adventure just so long as it has this all-out support. Not only in its operation must the public share intelligently, but in the long-term plans which will have to envision continued expansion. That the possibilities of the beautiful grounds and trees are fully realized, that the comforts of religion are offered, that books, flowers and entertainment are supplied in abundance, are but a few of the obligations that must rest upon citizens' committees, especially upon committees of women.

Modern medicine has witnessed a vast change in the pattern of the care of the sick, both ambulant and bed ridden. Time was when the family doctor saw the majority of patients in their homes. A sleepless night, a headache, a mashed finger rated a home visit. No longer so. The telephone, good roads, greater distances, the automobile, sickness and hospital insurance (requiring hospitalization to realize the benefits), the urban trend in population, the concentration of immobile diagnostic and therapeutic equipment in offices and hospitals, the opportunity for quick consultation (where doctors are physically close together as in professional buildings and hospitals), the very attitude of the enlightened patient, all have conspired to raise to unprecedented importance the office and hospital care of sick men and women.

There are more than 7,000 hospitals in this country. No one knows fully the future of their growth or the direction it may take. But we do know that new drugs even more remarkable than those we now have, new surgical techniques even more amazing than some at present available, that the consequent increase of the aging population, and the spread of the creeping inroads of Federal participation spell

change. Those responsible for the hospital care of our people must remain alert and prepared to meet these changes with promptness and wisdom.

This hospital is a memorial to those who died for God and Country in World War II. Of this fact one is reminded on entering its doors leading as they do to an over-vaulting, artfully lighted chapel, which bears on its walls, inscribed in stone, the names of Richmond's heroic dead. It is not too much to hope that in some way those who loved and lost, and hundreds of others who admit their debt of gratitude to the dead, will transmute sorrow and gratitude into practical service. Otherwise this hospital like many others will be hard pressed to find the hands and feet to do its work. Through such a continuing memorial of service, future as well as present generations can perpetuate their belief in America's way of life.

W.B.B.

Society Proceedings

Richmond Academy of Medicine.

The first fall meeting of the Academy was held on September 25th. The program was on "Lifetime and Estate Planning" and papers were presented by Mr. William J. McDowell of the Virginia Trust Company and Mr. William L. Zimmer, III, of McGuire, Eggleston, Boccock and Woods.

Dr. W. Linwood Ball is president of the Academy.

Williamsburg-James City.

This Society met on October 10th at the Williamsburg Lodge. Dr. T. W. Caldrony, Newport News, spoke on "Clinical Management of the Allergic Child".

The Alexandria Medical Society

Opened the 1956-57 season on September 14th. The meeting opened with a Kinescopic Cocktail—a motion picture on alcoholics. The remainder of the

meeting was devoted to matters of business. The meeting was quite meaty, especially the miniature sausages served so graciously by the Woman's Auxiliary.

GEORGE SPECK, M.D., *Publicity Chairman*

Suffolk Cancer Society.

The annual meeting of the Suffolk Chapter of the American Cancer Society was held on September 24th at the Louise Obici Hospital. The meeting was open to the public and a good sized audience attended. The theme of a panel discussion was "Hope for the Cancer Patient". Dr. M. A. Michael, president, presided. Dr. George Carroll, Suffolk, was moderator and the participants were Drs. Philip Coleman, Richmond; Louis Leone, Richmond, and Lawrence Stetson, Suffolk.

Dr. J. E. Rawls was elected president.

News . .

Calendar of Coming Events

AMERICAN COLLEGE OF OBSTETRICIANS AND GYNECOLOGISTS—5th Annual Clinical Meeting—The Palmer House, Chicago, Illinois—November 7-9.

CONFERENCE ON PROBLEMS OF THE AGING AND THE CHRONICALLY ILL—Sponsored Jointly by The Medical Society of Virginia and the Virginia Council on Health and Medical Care—Hotel John Marshall, Richmond, Virginia—November 8.

SOUTHERN MEDICAL ASSOCIATION GOLDEN ANNIVERSARY MEETING—Washington, D.C., —November 12-15.

AMERICAN PUBLIC HEALTH ASSOCIATION—84th Annual Meeting—Convention Hall, Atlantic City, New Jersey—November 12-16.

AMERICAN MEDICAL ASSOCIATION—Clinical Meeting—Seattle, Washington—November 27-30.

New Members.

Since the list published in the October issue of the Monthly, the following new members have been admitted into The Medical Society of Virginia:

Robert Whitehead Alfriend, M.D., Norfolk
Edward Adolphus Barham, Jr., M.D., Portsmouth
Lee Andrell Barnes, M.D., Franklin
Frank Nash Bilisoly, M.D., Norfolk
Stanley Carlton Boyce, M.D., Appomattox
Charles Whitney Caulkins, M.D., Waynesboro
Sidney William Coren, M.D., Norfolk
John Wesley Cumbia, M.D., Charlottesville
Powell Garland Dillard, Jr., M.D., Lynchburg
John Garlick Easterling M.D., Hopewell
Harry Clifford Foster, Jr., M.D., Martinsville
Thomas Eugene Haggerty, M.D., Falls Church
William Paul Irvin, M.D., Norfolk
David Benson Kruger, M.D., Norfolk
Frederic Maccabe, Jr., M.D., Charlottesville
James Terrell May Jr., M.D., Norfolk
Michael Judson Moore, M.D., Roanoke
Elma Adolphus Morgan, Jr., M.D., Portsmouth
Thomas Edward Padgett, M.D., Portsmouth
Harvey Pretlow Rawls, M.D., Norfolk
George Harry Morris Rector, M.D., Norfolk
Charles Henry Sackett, M.D., Lynchburg
Constantin Saliba, M.D., Williamsburg
Julius John Snyder, M.D., Norfolk
Clarence Brock Trower, Jr., M.D., Norfolk
Charles Finch Whicker, M.D., Norfolk
John Thornton Wood, M.D., Burkeville

Dr. McLemore Birdsong,

University of Virginia, was guest lecturer at the 21st Annual Meeting of the Piedmont Post-Graduate Clinical Assembly held in Clemson, S. C., in September. He spoke on Recent Advances in Immunization and Emergency Conditions of the Newborn Infant.

Dr. J. M. Habel,

Suffolk, was guest speaker at the annual achievement day of the Nansemond Home Demonstration Clubs in September. He is vice president of the American Camelia Society and a past president of the Virginia Camelia Society. He spoke to the Club on Care and Culture of Camelias.

State Health Department Personnel.

Dr. Willard R. Ferguson, formerly of Dallas, Texas, is serving as assistant director of the Halifax-Pittsylvania-Danville area.

Dr. James B. Kenley is serving as director of the Fluvanna-Goochland-Louisa area. He recently com-

pleted service in the U. S. Navy.

Dr. Wesley W. Wieland, formerly of Pittsburgh, is director of the Augusta-Staunton-Waynesboro area.

These appointments were effective November 1st.

McGuire Lecture Series.

The Annual Stuart McGuire Lecture Series will be held at the Medical College of Virginia, December 12-14. The lecturer will be Dr. Andre F. Cournand, Professor of Medicine, Columbia University, College of Physicians and Surgeons, and Director of the Cardio-Pulmonary Laboratory of Bellevue Hospital, New York.

On December 12th, Dr. Cournand will lecture on Validity and Value of Methods for the Study of the Dynamics of the Circulation in Relation to Cardiac Surgery. On the 13th, his subject will be Control of the Pulmonary Circulation in Man. Both lectures will begin at 8:30 P. M.

On the 13th, there will be a Symposium on Cardiology and Cardiac Surgery, beginning at 10:00 A.M. Subjects to be discussed are Cardiac Embryology by Dr. Erling S. Hegre, Professor of Anatomy, Medical College of Virginia; The Meaning of Pulmonary Hypertension in the Patient Being Considered for Cardiac Surgery by Dr. Rejane M. Harvey, Assistant Professor of Clinical Medicine, Columbia University; Indications for Surgery in Congenital Heart Disease and Indications for Surgery in Acquired Heart Disease by Dr. Reno R. Porter, Associate Professor of Medicine, Medical College of Virginia; The Surgery of Aortic Valvular Disease by Dr. Charles A. Hufnagel, Associate Professor of Surgery, Georgetown University School of Medicine; The Surgery of Interatrial Septal Defects of Dr. Lewis H. Boshier, Jr., Associate Professor of Surgery, Medical College of Virginia; The Surgery of Pulmonary Stenosis by Dr. William H. Muller, Jr., Professor and Chairman of the Department of Surgery, University of Virginia; and Vascular Reconstruction by Dr. Hufnagel.

On the 14th, the symposium will continue as follows: Pathological Physiology of Pulmonary Edema by Dr. John L. Patterson, Jr., Associate Professor of Medicine, Medical College of Virginia; The Treatment of Pulmonary Edema by Dr. Nathan Bloom, Professor of Clinical Medicine, Medical College of Virginia; Anticoagulant Therapy in Heart Disease by Dr. Paul D. Camp, Assistant Professor of Clinical Medicine, Medical College of Virginia; The Natural History of Cor Pulmonale in the Emphysematous Patient by Dr. Rejane M. Harvey; The

Management of Rheumatic Fever by Dr. Carolyn M. McCue, Assistant Professor of Pediatrics, Medical College of Virginia; Cardiac Resuscitation by Dr. Lewis H. Bosher, Jr.; and The Treatment of Hypertension by Dr. Edward S. Orgain, Professor of Medicine, Duke University School of Medicine.

All lectures will be held in the Baruch Auditorium of the Egyptian Building. There is no charge for the McGuire Lectures but there will be a charge of \$5.00 per day for the Symposium except to members of the faculty of the College, the Medical Department of the University of Virginia, physicians of McGuire Veterans Hospital, medical students and members of the house staff of any hospital.

Surrender of Heroin.

The Bureau of Narcotics, Treasury Department, advises that all registrants who surrender Heroin before November 19th, may be reimbursed at the rate of \$100.00 per ounce in the event of lack of proof of actual cost of the drug. Heroin found to be in the possession of registrants after that date is subject to seizure without reimbursement. Heroin and Heroin compounds must be surrendered to the Treasury Department, Bureau of Narcotics, Baltimore 2, Maryland, accompanied by four Forms 142, with each form being signed. Shipments must be made by express prepaid. Forms may be secured from the Baltimore office or the Director of Internal Revenue, Richmond.

Prescriptions for Narcotics.

The Treasury Department, Bureau of Narcotics, has advised that in some of the hospitals in the State of Virginia interns are writing prescriptions for narcotics to be administered to patients confined in the institutions. In order that an intern may be permitted to write narcotic prescriptions, he must be licensed under the Virginia State law to practice the medical profession and he must also have in his possession a narcotic special stamp which has been issued by the Director of Internal Revenue, Richmond, Virginia.

Medical Lectures at University.

The Fall Series of Evening Medical Lectures began at the University of Virginia on October 1st. Three lectures were held that month and the following will be given beginning in November:

November 5—The Collateral Circulation of the Brain and the Factors Influencing It—Dr. Derek Denny-Brown, Department of Neurology, Harvard Medical School, Boston.

November 19—Studies on Serotonin—Dr. Sidney

Udenfriend, Chief, Section of Cellular Pharmacology, National Heart Institute, Bethesda, Md.

November 26th—AOA Lecture—to be announced.

December 3rd—Dr. David Hume, Chairman, Department of Surgery, Medical College of Virginia—subject to be announced.

December 17th—The John F. Anderson Lecture—ship—Medical Research, 1956: Some Problems at Midcentury—Dr. James A. Shannon, National Institutes of Health, Bethesda, Md.

All lectures will be held in the auditorium of the medical school at 8:00 P.M.

Dr. H. G. Hudnall,

Recently of Covington, has been appointed to the medical staff of the Veterans Administration Hospital in Covington. He has recently served as chief of staff of the Alleghany Memorial Hospital in Covington.

Dr. Count D. Gibson,

Richmond, has been appointed acting head of the department of medicine at the Medical College of Virginia and promoted from assistant professor of medicine to associate professor. He replaces Dr. Harry Walker who suffered a heart attack shortly after his appointment to the post in July.

Southern Medical Association Golden Anniversary.

The four-day Golden Anniversary Meeting of the Southern Medical Association will start on November 12th in Washington, D. C. More than 300 papers will be presented during the scientific assembly, which includes 20 specialty sections. There will also be official tours of Washington and vicinity, including the City's unexcelled medical facilities; a performance by Washington Doctors' Symphony Orchestra; a Golf Tournament; and scores of special breakfasts, luncheons, dinners, alumni and fraternity reunions, and Woman's Auxiliary functions.

Monday, the 12th, has been designated as "D. C. Day" and the sessions will be opened by Dr. Ralph M. Caulk, President of the Medical Society of the District of Columbia.

Dean of Medicine.

Dr. William F. Maloney of Minneapolis has been named Dean of Medicine of the Medical College of Virginia. He will take office early next year. Dr. Maloney is now assistant dean of the College of Medical Sciences of the University of Minnesota. He is also assistant professor of internal medicine.

Dr. William H. Kelly,

Richmond, has resigned as President of the Memorial Guidance Clinic. Effective December 1st, he will become assistant director of the Michigan Department of Mental Health.

The Gill Memorial Eye, Ear and Throat Hospital,

Roanoke, will hold its 30th Annual Spring Congress in Ophthalmology and Otolaryngology and allied specialties, April 1-6, 1957.

Among the guest speakers are: Drs. David B. Allman, Atlantic City; Seymour Alpert, Washington; Edward A. Carr, Jr., Ann Arbor; James H. Doggart, London, England; Harold F. Falls, Ann Arbor; Frederick A. Figi, Rochester, Minn.; Samuel Fomon, New York; Dan M. Gordon, New York; Maynard K. Hine, Indianapolis; Howard P. House, Los Angeles; Jay G. Linn, Jr., Pittsburgh; Frank W. Newell, Chicago; Hugh L. Ormsby, Toronto, Canada; Albert D. Ruedemann, Detroit; Harry L. Rogers, Philadelphia; Frank B. Walsh, Baltimore; and Barnes Woodhall, Durham.

Dr. Van Riper Leaves Polio Foundation.

Dr. Hart E. Van Riper, medical director of the National Foundation for Infantile Paralysis since 1946, has assumed the position of Medical Director of Geigy Pharmaceuticals, effective November 1st.

A.M.A. Clinical Session.

The 10th Clinical Session of the American Medical Association is scheduled for November 27-30 in Seattle, Washington. This session, as usual, will be

tailored for the general practitioner. It is intended to provide the family doctor with information about the latest special techniques, treatments, medicines, and equipment.

More than 200 scientific and technical exhibits will be displayed in Seattle's Civic Auditorium. The scientific program will include 20 panel discussions on subjects such as hypertension, hemolytic anemia, prenatal care, epilepsy and vascular disorders. Forty-five papers will be delivered by well-known medical educators and practicing physicians from all parts of the country on such subjects as fluid balance, fractures, diabetes and heart disease. Closed circuit television clinics, featuring Seattle area physicians, will be presented to those attending the meeting.

Radioactive Cobalt Machine at University.

A powerful radioactive cobalt machine has given "atomic medicine" a new reality at the University of Virginia Medical Center. The unit has been in operation since the first of July, with twenty patients from widely separated areas in the State already having received treatment. With a beam equivalent to that of a two-million-volt x-ray machine, the Cobalt-60 machine offers patients with certain deep-seated tumors the maximum opportunity for successful treatment.

This is the first such machine to be installed in Virginia. In the past patients requiring this type of radiation have had to be referred to other medical centers outside the State. Purchase of the unit was made possible through private donations from a number of persons.

Obituaries

Dr. Booker.

Lyle S. Booker, M. D. of Waynesboro, was called to his eternal rest on August 10, 1956, after a short terminal illness. He was born on September 23, 1883, in Augusta County, in what is now known as Bookerdale, a residential section of Waynesboro.

After receiving his primary education in the schools of Augusta County, he attended Fishburne Military School. He graduated from the former University College of Medicine in Richmond in 1908. After an internship at the Hospital of the University College of Medicine under Dr. Stuart McGuire, he joined the staff of Watts Hospital in Durham, North Carolina. Dr. Booker was later Chief of the Surgical Staff at Watts Hospital and a member of the Staff of Lincoln Hospital in Durham. He was interested in the development of Duke Medical School in Durham and performed the first opera-

tion there. In 1921 he was elected a Fellow in the American College of Surgeons. He was President of the Durham County Medical Society in 1928.

During his very successful years of practicing surgery in Durham, he developed and organized the Durham Bulls Baseball Club of which he was President and owner from 1926 to 1932. During 1917 and 1918, he served on the Selective Service Board in Durham, North Carolina.

During his residence in Durham, Dr. Booker was President of the Durham Lions Club, Trustee of the Presbyterian Church in Durham, President of Durham Fair Association and Shrine Club.

In 1936, Dr. Booker returned to his homeland and participated in the development of a new and larger hospital in Waynesboro. He was quite active in this project, and after its completion practiced the art of surgery until he retired in 1950.

After returning to Waynesboro, Dr. Booker again became active in promoting his chief hobby, baseball. Along with other interested citizens, he was responsible for organizing a good ball club in this community.

Dr. Booker was not only active in civic and fraternal affairs but also participated quite actively in the affairs of his profession. He was Past President of the Staff of the Waynesboro Community Hospital and member of the American Medical Association, The Medical Society of Virginia, Southern Medical Association, Tri-State Medical Society, and Augusta County Medical Society.

Dr. Booker was a former Kiwanian, a member of the First Presbyterian Church, a 32nd Degree Mason, served on the Board of Tax Assessors of Waynesboro and also on the Selective Service Board during World War II and the Korean War and continued to serve until recent months.

Dr. Booker will long be remembered by his many patients and other friends as an untiring servant of mankind. The people and the Medical Profession of Waynesboro will ever be grateful for his activities in the development of new and better hospital facilities.

In memory of a long and faithful servant,

BE IT RESOLVED that these remarks be spread upon the Minutes of the Staff of the Waynesboro Community Hospital and the Minutes of the Augusta County Medical Society and recorded in the permanent record of the deceased physicians who have served on the Staff of the Waynesboro Community Hospital.

BE IT FURTHER RESOLVED that copies be sent to The Medical Society of Virginia for inclusion in the Virginia Medical Monthly and to members of the family.

C. L. SAVAGE, M.D.

BLISS K. WEEM, M.D.

Dr. DuBose.

The death of Dr. Roger Harold DuBose on April 2, 1956, marked the passing of one of our most prominent physicians, a pioneer in pediatrics in this area. He was born in Darlington, South Carolina, October 31, 1891.

Dr. DuBose established practice in Roanoke in May 1922 and became a member of the Second Presbyterian Church.

After completing his medical education at the Medical College of Virginia he entered the Navy leaving with the rank of Lieutenant. He practiced in Norfolk for a short time before going to be with Dr. Charles Gilmore Kerley in New York for his practical training in pediatrics. He

lived a life in his community as a physician true to his calling, one who was willing and particularly capable of meeting every requirement of the child.

He had an unusual capacity for work and one marvelled at his ability to make countless house calls day and night, yet most of all he enjoyed life. Feeding the undernourished child and growing flowers and vegetables in his own garden, most of which he gave to his friends, were among his greatest pleasures. Sharing and playing his practical jokes on both family and clientele, his record stands as an exemplary one of devotion to the ideals of furnishing the best possible medical service to his patients regardless of their economic level in the community. He regarded the affection and respect of his patients as his most valuable possession.

BE IT RESOLVED that The Roanoke Academy of Medicine record in its minutes our sorrow in the passing of Dr. DuBose. That a copy of these resolutions be entered in the minutes of the Society, a copy be forwarded to the family and a copy be sent to The Medical Society of Virginia.

RUTH BARNHART, M.D.

HUGH H. TROUT, JR., M.D.

A. M. GROSECLOSE, M.D., *Chairman*

Dr. Dunkley.

Dr. James H. Dunkley, one of the eldest physicians in the City of Roanoke, died February 6, 1956, after a long illness. He was eighty-six years of age and a graduate of the College of Physicians and Surgeons in Baltimore in 1892.

He practiced in Saltville, Virginia, until he moved to Roanoke in 1912. He was Medical Director of the Shenandoah Life Insurance Company from the date of its organization for twenty-five years, retiring fifteen years ago.

He was a life member of The Medical Society of Virginia having joined in 1901.

THEREFORE, BE IT RESOLVED that the Roanoke Academy of Medicine record in its minutes our sorrow in Dr. Dunkley's passing, that a copy of these resolutions be entered in the minutes of the Society, a copy be forwarded to the family, and a copy be sent to The Medical Society of Virginia.

CHARLES H. PETERSON

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FRANK A. FARMER, *Chairman*

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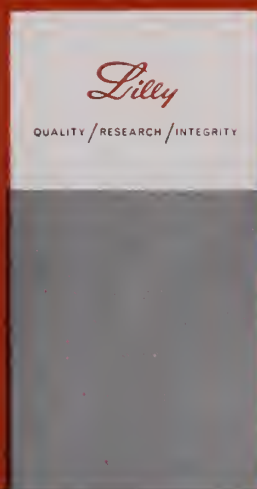
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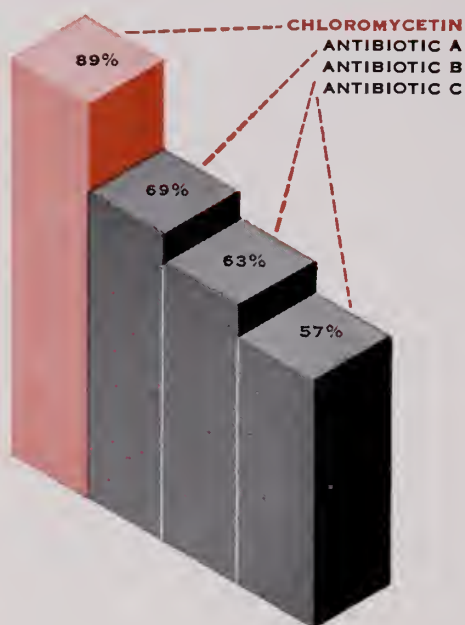
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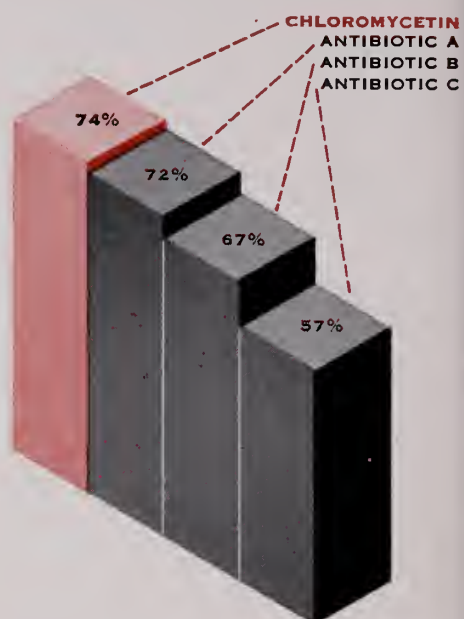
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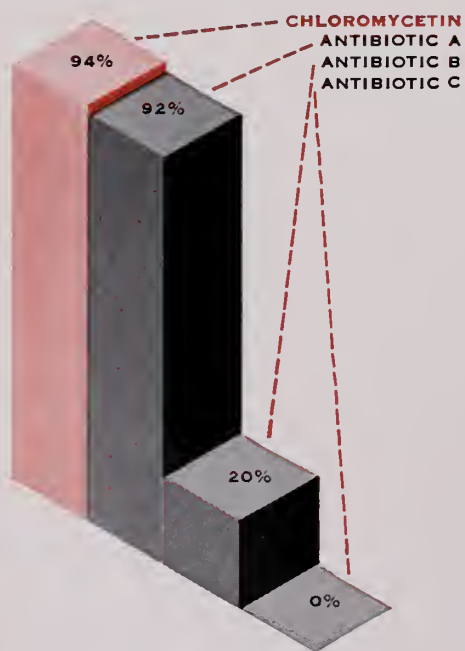




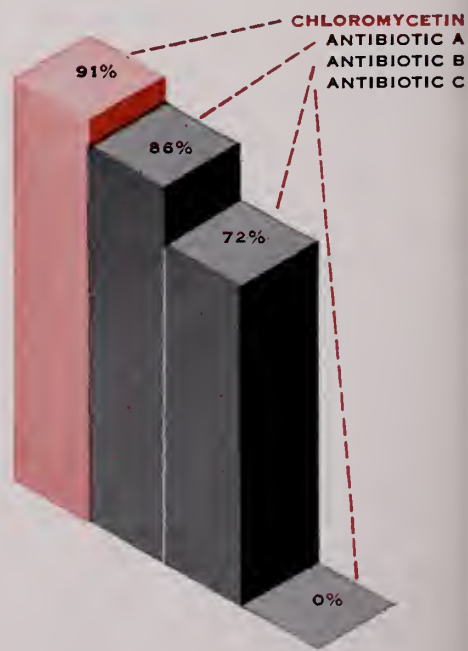
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VIRGINIA MEDICAL MONTHLY

(Founded by Landon B. Edwards, M. D., April 1874)

PUBLISHED MONTHLY BY THE MEDICAL SOCIETY OF VIRGINIA

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1105 West Franklin Street

Richmond 20, Virginia

Annual Subscription—\$2.00

Single Copies—25¢

TABLE OF CONTENTS

GUEST EDITORIAL

The Use of Hepato-Toxic Drugs—

Charles M. Caravati, M.D.----- 539

ORIGINAL ARTICLES

Some Experiences with Metrazol in Geriatric Practice—

Thomas R. Butterworth, Jr., M.D.----- 540

Observations on Chronic Brucellosis—

Oscar Swineford, Jr., M.D.----- 544

Levallorphan in Obstetrics—T. Stacy Lloyd, Jr., M.D.--- 551

Milk of Calcium Bile—Robert McLelland, M.D.----- 554

“Boxing Your Insurance Problems”—Chuck Davey----- 557

Clinicopathological Conference ----- 559

PRE-PAID MEDICAL CARE

Blue Shield is the Doctor's Plan----- 563

MENTAL HEALTH

The Role of the Psychologist in the Mental Hospital---- 565

PUBLIC HEALTH

Endemic Typhus ----- 568

THE MEDICAL SOCIETY OF VIRGINIA

Minutes of 1956 Annual Meeting----- 569

WOMAN'S AUXILIARY ----- 583

BOOK ANNOUNCEMENTS ----- 587

EDITORIAL

The Pre-Paid Medical Page----- 588

NEWS ----- 589

OBITUARIES ----- 594

INDEX TO VOLUME 83----- 595

SHORT SUBJECTS—Infant Hip Abnormalities, 543; Hamsters Catch Common Cold, 550; Let's Reminisce, 556; \$65 Million in Construction, 567; Mental Tests Suggested, 586.

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INDEX TO ADVERTISERS—Page 56

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*This graph is adapted from Altemeier, Culbertson, Sherman, Cole, Elstun, & Fultz.¹



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Guest Editorial

The Use of Hepato-Toxic Drugs

WHEN SHOULD the clinician prescribe new and potent drugs reported by supposedly reliable authorities as being effective therapeutically, yet possessing possible toxic action.

To satisfactorily answer this question, let us consider one widely used and valuable drug, Chlorpromazine, marketed under the trade name of Thorazine, whose administration is often followed by serious side effects. Favorable response in the management of many symptoms has followed its use, yet hepatitis and many other undesirable pathologic states such as Parkinsonism, convulsions, etc., occur in a fair percentage of patients. According to Snell, from one to five per cent of cases treated with Chlorpromazine develop jaundice and this may happen regardless of the dosage, its method or length of period of administration. Cases have been reported who have had only one dose of the drug or it has occurred after a long and intensive course of therapy.

This icterogenic agent produces bile stasis with minimal inflammatory changes in the liver and the clinical picture may be identical to that seen in extrahepatic obstruction. The bilirubinemia may be severe and the evidence of obstruction may continue for many weeks. Because of this, many patients have been surgically explored on the assumption that an extrahepatic lesion was present. At laparotomy, no stone or neoplasm have been found but liver biopsy has shown an "intrahepatic block" with mild cholangitis probably caused by Chlorpromazine. We have encountered two such cases in the past few weeks and, in one of these, jaundice still is present after over eight weeks of illness.

Many other drugs may produce hepatic injury such as: phenylbutazone (Butazolidin), the gold salts, thiouracil, para-aminosalicylic acid (PAS), phenurone (Phenacemide), and methyl-testosterone.

Before prescribing these drugs and other new ones, the physician should be familiar with the reported experience of several reliable authorities, especially as regards the potential toxic action. Further, they should be withheld in the management of minor complaints and reserved for use in the gravely ill, until the clinician is more certain of the expected response, as well as the possible danger of the therapy. This does not infer that we should not prescribe new and powerful drugs, but suggests that we utilize our own considered judgment and weigh carefully the potential hazard against the expected benefit of the agent prescribed.

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Some Experiences with Metrazol in Geriatric Practice

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THE GIGANTIC STRIDES made by medicine in the control of the killing diseases of the past, as well as the increase in neonatal salvage, have greatly increased the individual's span of life. In the United States the life expectancy at birth is now 50 per cent greater than a hundred years ago, so that, as of 1950, over 8 per cent of the total population are 65 years or older¹⁷, and it has been estimated that by 1980 this group will comprise 26,000,000 individuals.

Inevitably this rise in the mean age of the population increasingly presents us with the problems incident to senescence. Thus, today in the United States one-third of all the patients admitted to public mental hospitals are over 65 years old.

Unfortunately the physical decrepitude of old age is often accompanied by mental changes of confusion and disorientation as a result of anoxia, with or without cerebral arteriosclerosis and without other organic brain changes. It is this mental state coupled with untidiness, incontinence, and other disturbing symptoms which make the care of the patient outside of an institution difficult, if not impossible. Thus, mental institutions have become overfilled with aged individuals who are mostly not true mental cases.

This is true also of the Richmond City Home with which I am associated. Here, as in most institutions, we are short of personnel so that it becomes exceedingly difficult to properly care for the acutely ill because of the demands made by the incontinence, confusion, general untidiness, and antisocial activity of our senile patients who often also have to be spoon fed.

Since many authors^{1,3,4,7,12-15,18,19,21,22} have reported improvement in these senile confusions by means of oral Metrazol therapy, thus lightening immensely the work load on the wards, we instituted this form of treatment at our Hospital in an attempt to alleviate our problems.

Ten patients were chosen, without regard for race or sex, on the basis that because of their arteriosclerotic changes and resulting behavior they were either occupying a great deal of the ward person-

nel's time or were damaging their own well-being. The test group received no unusual attention, and since practically all of our patients received medication of one type or another, no special control group was considered necessary. The selected 10 were taken off all drugs except essentials (i.e., digitalis, insulin, mercurials, etc.) and placed on Metrazol tablets. The change in the type of medicine cannot be considered a factor because this is a common occurrence and has never produced any noticeable change in behavior. A dosage of 0.1 grams four times daily was given for one week, while the patients were observed for untoward reactions, and then increased to 0.2 grams four times a day. In a few cases 1.2 grams a day was administered because of regression or failure to respond. The patients were evaluated before initiating treatment and at weekly intervals for three months when a final evaluation was made. Direct questioning was used only in the beginning and at the end of the trial period to establish the extent of orientation. The weekly evaluations were obtained from observations made by us or by ward personnel who are routinely questioned about the behavior of all of our problem patients and who were unaware of the nature of our experiment.

Psychological testing was considered but the consulting psychologist considered the group too far deteriorated to obtain satisfactory statistics. Furthermore the usual psychologic tests employed are generally unsuited for testing mental changes in these aged individuals².

Two patients refused the Metrazol but eight received the prescribed dosage for the entire three months and their case reports follow.

Case 1. C.E.—68 years old, colored male with generalized arteriosclerosis. As a result of a cerebrovascular accident more than 5 years ago, he shows signs of muscular weakness of the left arm and leg, but no speech impairment. Prior to treatment he was confused, disoriented, and dirty. He used his hands in preference to knife and fork and was incontinent at intervals. After three weeks on 0.8 grams of Metrazol daily (2 tablets four times a day)

he became more active but did not improve otherwise. The dosage of Metrazol was increased to 0.3 grams (3 tablets) four times a day and one week later he was neat and continent and began to use the tableware. His sensorium has improved markedly and his response is considered excellent.

Case 2. H.L.—83 year old, colored male who had recently become very lethargic, sleeping most of the time, and who complained during most of his waking hours. He responded after two weeks of therapy with 0.2 grams (2 tablets) and now remains awake during the day, sleeps more soundly at night and no longer complains. The results are considered good in this case.

Case 3. S.M.—67 year old, white male with a diagnosis of generalized arteriosclerosis and hypertensive heart disease. He was incontinent and very withdrawn, leaving bed only for meals and refusing to answer questions or show interest in any activity. On 0.8 grams (8 tablets) of Metrazol a day, he became continent, began to read the newspaper daily, and talked to the nurses about his family. After one month he began to regress on this same dosage so that it was increased to 0.3 grams (3 tablets) four times a day. On this dosage he returned to his original state of improvement and has had no more relapses. He is being maintained on the 0.3 grams four times a day. In this case the results are considered good.

Case 4. D.R.—73 year old, white male with arteriosclerosis and hypertension. Prior to Metrazol therapy he was incontinent and emotionally labile. On a dosage of 0.3 grams (3 tablets) four times a day he has become continent and has had no crying spells. The dose could later be reduced to 0.2 grams four times a day. The patient is still mentally confused but, because of the marked decrease in the time required to care for him, results are considered fair.

Case 5. W.B.—85 year old, white male with a diagnosis of senility and hypertension. He was a disciplinary problem prior to treatment, being very paranoid and combative. His sensorium was markedly impaired and his appetite was very poor. On a dosage of 0.2 grams (2 tablets) of Metrazol four times a day his appetite improved and his combativeness disappeared. After a month he began to regress but regained his original state of improvement after two weeks on 1.2 grams (12 tablets) per day. His recent memory is still impaired but results are considered fair. He is being maintained at his present status on 0.3 grams four times a day.

Case 6. H.G.—54 year old, colored male with

arteriosclerotic brain changes. Before he was placed on Metrazol therapy he constantly sat in the middle of the floor wearing a silly grin and refusing to show interest in any type of activity. After two weeks of therapy with 0.2 grams (2 tablets) four times a day he became much easier to control and now watches television with the other patients. Results are considered fair in this case.

Case 7. C.T.—66 year old, colored female with marked mental deterioration who constantly roamed through the wards completely disoriented and incontinent. She was treated with 0.1 gram, later 0.2 grams and then 0.3 grams (1, 2, and 3 tablets) four times a day. Her appetite improved during therapy but her mental condition did not improve and the only difference noted was that she was incontinent in more parts of the ward. Results were obviously poor in this case.

Case 8. J.G.—84 year old, white male with a diagnosis of senility. He has been completely disoriented for years and at times was very combative. A few weeks prior to initiation of Metrazol therapy he developed anorexia and became progressively weaker to the extent that he was confined to bed. On 0.8 grams (8 tablets) per day his appetite returned, he regained strength, and is once again ambulatory. He is less combative but is still disoriented as to time and place. We consider the results in this case good.

Summary of Results: Out of 8 patients treated with oral Metrazol we consider the results in 1 case excellent, in 3 cases good, in 3 cases fair, and 1 case poor.

DISCUSSION

It is felt by most observers that the mental deterioration found in senility and arteriosclerosis is largely due to anoxia^{6,8,11,13}. Mental confusion, emotional lability, errors in judgment, and inability to concentrate are common symptoms in these subjects and can be caused by oxygen lack alone¹³. Eckenhoff et al.⁶ state that the integrity of the nervous system depends on homeostasis of the cellular environment which can be disturbed by respiratory depression or local circulatory disturbances, and Freyhan, Woodward and Kety⁸ conclude that senile psychoses are probably the result of a significant reduction in cerebral oxygen utilization on the basis of increased cerebrovascular resistance and its resultant reduction in blood flow through the brain.

Metrazol's action as a stimulant has long been recognized. It acts primarily on the respiratory, circulatory, and vagal centers in the medulla to increase circulation and respiration, but all parts of the cere-

brospinal axis are stimulated to some degree^{10,13}. The drug facilitates transmission of impulses across the synaptic junction in sensory and motor divisions of the central nervous system, increasing the reflex action of the cord^{3,5} and also causes dilatation of the cerebral vessels^{5,9}. Goodman and Gilman⁹ have shown that peripheral action on the heart and blood vessels is negligible and there is no permanent alteration in blood pressure even in convulsive doses. Their report is supported by clinical trials made by Andosca¹, Chesrow⁴, Smigel¹⁹, Shapiro¹⁸ and their co-workers who report a rise in blood pressure only in patients with hypotension.

The dosage we use is similar to that suggested by other writers and appears to leave a safe margin between therapeutic levels and the minimal lethal dose of 10 grams⁹. Although Swenson and Grimes²¹ report improvement using 0.3 grams (3 tablets) of Metrazol per day, most writers share the opinion that very little effect is seen until higher levels are reached. If there has been no response at the end of thirty days, there will in all probability not be any and further therapy at similar dosage is not indicated. A regression of improvement is noticed approximately two to four weeks after discontinuance of the drug.

Untoward reactions were not seen in our series and are rare in the literature. Those most commonly observed are gastric irritation with nausea and vomiting. All unpleasant symptoms disappear without apparent after effect upon stopping the medication and most recede if the same or lower dosage is continued.

In patients with low convulsive thresholds due to epilepsy or irritative cerebral lesions even small doses may lead to muscle spasms. Thus, Treva-
than²² reports convulsions in 5 patients out of a series of 29. These convulsions occurred with dosages of 0.8 and 1.2 grams (8 to 12 tablets) per day and a history of cerebrovascular accident is suggested as a contraindication by that author. No serious complications resulted from the seizures. While we do not know the exact physical findings in these patients who convulsed, it must be remembered that liver damage also will potentiate subcutaneously (or orally) administered Metrazol because of a lack of degradation of the drug to a non-convulsive product²⁰ by the liver.

Results reported in the literature are similar to our own in most instances although Mead et al.¹⁶ in their series of 24 cases could find no significant difference in patients taking Metrazol and the control group. However their cases were selected, many

psychotic, and only 7 patients received Metrazol.

The most marked improvement reported are in appetite, sleep habits, mental alertness, mood, and ward amenability. Orientation improved in some instances and incontinence disappeared in others. Improvements in blood count and physical strength have been noted but can probably be explained on the basis of improved appetite.

SUMMARY

1. Many of the symptoms of cerebral arteriosclerosis and senility are due to anoxia.
2. Metrazol lessens anoxia through stimulation of the nervous system, particularly the medullary centers.
3. Promising results have been reported in the treatment of cerebral arteriosclerosis with oral Metrazol in doses up to 1.2 grams a day.
4. Untoward reactions are mild and uncommon and there is a wide margin between therapeutic and toxic levels.
5. In our small series of eight cases who completed a course of Metrazol therapy, there was improvement in seven and we are convinced that the drug has a definite value in the treatment of geriatric problems.

The author wishes to gratefully acknowledge the cooperation, help, and suggestions given by Dr. Patrick H. Drewry, Professor of Clinical Psychiatry at the Medical College of Virginia, and Dr. G. Benjamin Carter, City Home Physician.

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Infant Hip Abnormalities

Every newborn infant who shows even the slightest sign of abnormal hip development should be treated immediately. Dr. Sherman S. Coleman, Chicago, made his recommendation because it is impossible to know which cases will heal by themselves, which will persist as a partial dislocation, and which will progress to a true dislocation.

The simplicity of the treatment, and the fact that the earlier treatment is begun the better the results will be, make it "obligatory" to treat all infants showings signs of abnormality, he said in the October 6th *Journal of the American Medical Association*.

Treatment should be started within days—or even hours—after birth, he said. Most patients treated early are restored to normal within a few months. Every infant should receive a thorough orthopedic examination immediately after birth and should be repeatedly examined during the first year of life since

the abnormal developmental process may be so obscure as to go undetected for several months. If a partial dislocation goes unnoticed in the early years it may provide the groundwork for a far-advanced and disabling case of osteoarthritis of the hip joint in adult life.

Dr. Coleman examined 3,500 newborn infants at Primary Children's Hospital, Salt Lake City, and found 32 cases of congenital dysplasia (the medical term for abnormalities of development) of the hip. This amounts to one case in every 110 births, a rate slightly higher than is usually reported in the U.S., but close to the rate in Russia and much less than the one in 10 births reported in Italy. Of his patients, 27 were girls and five boys.

Dr. Coleman is now with the department of orthopedic surgery, Northwestern University, Chicago.

Observations on Chronic Brucellosis

With Emphasis on Brucellergen as a Screening Test

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THE PROBLEMS of the diagnosis and treatment of chronic brucellosis are far from settled. Spink¹ requires the isolation of the organism or a significant agglutination titer for a positive diagnosis. He decries the diagnostic use of the brucellergen skin test since, as he points out, 10-20% of the population in an endemic area may show positive skin tests and agglutinations in low titer.

Rheumatism, plus other symptoms which strongly suggest chronic brucellosis, is a frequent diagnostic problem in this Arthritis Clinic. But strongly positive agglutinations are unusual and blood cultures have never been positive. On the other hand, strongly positive brucellergen skin tests, often with acute exacerbations of symptoms, are common. Because of this the skin test has been adopted as the routine screening procedure for suspected brucellosis. This study was prompted by several recent cases in which there were strong local reactions, intensification of the major complaints, and impressive relief following treatment of supposed brucellosis.

SELECTION OF CASES

Clinical suspicion of chronic brucellosis was aroused many times by combinations of several of the following signs and symptoms: chronic fatigue, atypical arthritis, fibromyalgia, psychoneurosis, paresthesias, recurrent chills and fever, sweating, malaise, headache, adenopathy and hepatosplenomegaly. Records of 27 such cases with 3 plus or stronger brucellergen skin reactions² were selected for this study. Similar cases with brucellergen skin reactions of 2 plus or less were excluded arbitrarily.

ANALYSIS OF CASES

The clinical manifestations of the 27 selected cases, studied between 1943 and 1956 are summarized in Table I. Nineteen were from widely distributed

areas of Virginia. Seven were from Albemarle, two each from Fauquier and Augusta, and one each from Caroline, Charlotte, Clarke, Dinwiddie, Loudoun, Nelson, Rockingham and Tazewell Counties. Fifteen cases had been drinking raw milk regularly when the symptoms began. Seven were farmers who had had long contacts with cattle. Two had had repeated contacts with aborting sows. Symptoms had been present from several months to seventeen years. The ages varied from 17 to 66. There were

TABLE I
CHRONIC BRUCELOSIS
CLINICAL MANIFESTATIONS IN 27 CASES

Fatigue.....	22	Malaise.....	11
Arthritis.....	19	Headache.....	10
Fibrositis.....	19	Paresthesias.....	6
Neurosis.....	18	Adenopathy.....	6
Chills and Fever.....	17	Spleno-hepatomegaly.....	2
Sweats.....	15	Impotence.....	1

14 men and 13 women. Eighty-one per cent complained of chronic fatigue. Seventy per cent had prominent muscle and joint symptoms. Psychoneurosis in 66 per cent varied from mild irritability to marked mental disturbance requiring psychiatric care. The incidence of other symptoms is shown in Table I.

Results of agglutination and skin tests are summarized in Table II. Twenty-five blood cultures obtained in 14 cases were all negative. One sternal bone marrow culture was positive for brucella abortus after two previous blood cultures had been negative.

TABLE II
RESULTS OF AGGLUTINATIONS AND BRUCELLERGEN
SKIN TESTS

Agglutinations		Skin Tests	
Titer	No. Cases	Titer	No. Cases
1:1280	1	3+	3
1:640	2	4+	18
1:320	1	5+	6
1:160	7		
1:80	1		
Negative	15		

Presented at the Annual Meeting of The Medical Society of Virginia, Roanoke, October 14-17, 1956.

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Brucella agglutinations, using suis and abortus antigens in most instances and a combined antigen in a few, showed titers of 1:160 or higher in 11 of the 27 cases. No clinical correlation in the form of exposure to sick hogs could be made in the one patient in whom the suis exceeded the abortus titer 1:640 to 1:160.

Brucellergen skin tests were interpreted according to Huddleson's classification².

2 plus = edema and erythema 2 cm. in diameter

3 plus = edema and erythema 2 cm. or more in diameter

4 plus = edema and erythema 2 cm. or more in diameter plus systemic reaction

5 plus = edema and erythema 2 cm. or more in diameter plus marked systemic reaction [Fig. 1]

The opsonocytophagic test, performed in 16 cases, correlated poorly with the skin reactions and with the agglutinations. It is no longer used in this clinical laboratory since it is generally considered to be unreliable^{1,3}. Harris^{5,20} still thinks it may be useful at times.



Fig. 1.—5+ brucellergen test. 1. Lymphangitis. 2. Wide flare. 3. Necrotic center.

The results of therapy are recorded in Table III. "Poor results" indicate either equivocal or no improvement. Sustained incomplete relief of troublesome symptoms, with unequivocal improvement in the sense of well-being is interpreted as a "fair result". "Good results" indicate sustained and virtually complete relief of all symptoms.

Occasional mild and transient reactions followed individual injections of the vaccine. In two patients vaccine therapy was discontinued because repeated reactions to minute doses were so severe. Psychotherapy, when used, was provided by psychiatrists. The antibiotic treatment of the individual cases was

given by methods current at that time. Tetracycline was used alone in four cases and combined with streptomycin in one. Chlortetracycline, chloramphenicol, and oxytetracycline were used alone in six, three and two cases respectively: two grams daily for two weeks, when tolerated. Streptomycin, one gram intramuscularly daily for two weeks, was

TABLE III
RESULTS OF THERAPY

Result	No. Cases	Result	No. Cases
With Antibiotic		With Vaccine. After	
Alone.....	17	Antibiotic Failure..	13
Good.....	1	Good.....	1
Fair.....	8	Fair.....	2
Poor.....	8	Poor.....	7
With Vaccine Alone		Discontinued	
Good.....	2	Reactions.....	2
Fair.....	4	Arbitrarily.....	1
Poor.....	0		

combined with chlortetracycline in one patient and with oxytetracycline in two cases.

179 cases of brucellosis were reported in Virginia in the 4 year period, 1952-1955 inclusive²¹. It is quite possible that this is only a fraction of the actual number of cases.

DISCUSSION

There are wide differences of opinion concerning diagnostic criteria and methods of treatment. Spink^{1,3} has arbitrarily established the following criteria for a positive diagnosis of brucellosis: (1) Isolation of the organism; (2) agglutination titers of 1:160 or more. Of the skin test he says: "Because Brucella

skin tests yield such misleading information, the use of the skin test for diagnostic purposes should be abandoned."

Castaneda⁴ pointed out that while there is no doubt of its specificity, the skin test has not been generally accepted because no satisfactory criteria for adequate interpretation of it has been established. He noted that reactions to the skin test are usually of high intensity in the later stages of the disease and may be "the sole indication, not only of past infection but, also, of a state of hypersensitivity accompanied by clinical manifestations referred to as chronic brucellosis."

Harris⁵, on the other hand, commenting on the National Research Council Committee report on chronic brucellosis, notes . . . "the report fails to recognize that acute and chronic brucellosis, although phases of the same disease, require different criteria. . . . A diagnosis of chronic brucellosis may not be dismissed because neither culture is positive nor agglutinations are present in titers above 1:320. The clinician who is familiar with chronic and acute brucellosis utilizes all available laboratory aids, correlating results with history and clinical findings. . . . No informed physician bases a diagnosis on 'a group of non-specific symptoms and a positive skin test'. However, a negative reaction has much significance in a longstanding illness since false negative reactions occur in less than 5% of tests. It would be as wrong to abandon the intradermal test for tuberculosis or histoplasmosis. It is a question of proper interpretation."

The brucellergen skin test is done on all cases suspected of chronic brucellosis in this Clinic. Those with 3 plus or stronger reactions are diagnosed, *tentatively*, as brucellosis and are treated like proven cases. Seventy-five additional cases have been diagnosed as brucellosis on the other services in this hospital since 1943, using Spink's^{1,3} diagnostic criteria. Had the brucellergen skin test been used as a screening procedure in all suspected cases, it is possible that 109 additional cases would have been diagnosed tentatively, on the basis of the ratio of 11 positive to 16 tentatively diagnosed cases in this report.

Effective therapy of acute and early chronic brucellosis has been reported by several investigators⁸⁻¹⁶. Treatment of late chronic brucellosis is much less effective. Harris^{5,20} claimed that antibiotic therapy is ineffective in about 50 per cent of chronic brucellosis cases. Castaneda⁶ attributed this resistance to treatment to the intracellular reservoir of the brucella, where they are protected from the effects of antibiotics. Castaneda⁶ feels that many of the symptoms of

brucellosis are due to the tuberculin type of allergic reaction to the endogenous brucella protein and the most effective form of treatment of these symptoms is desensitization.

Spink et al³ "do not subscribe to the treatment of brucellosis by desensitization with brucella antigen".

Huddleson² recommends the production of reactions with a culture filtrate called "Brucellin". Castaneda and Carillo-Cardenas¹⁸ used a brucella vaccine prepared by grinding a mixture of abortus, suis, and melitensis organisms. The commercial vaccine* used in these cases contains one billion brucella abortus and one billion melitensis chemically killed organisms per cc.

Harris²⁰ states: "Brucella antigen still plays an important role in the management of chronic brucellosis, alone or in conjunction with antibiotic therapy." He recommends antibiotics first. When effective, short courses of 4 to 7 days are repeated as needed. When antibiotics do not provide satisfactory relief, antigen injections are given. A large proportion of his antibiotic failures were relieved when antigen therapy was added. He lists various groupings of the several diagnostic criteria as strongly or moderately presumptive, and supportive. He considers a positive blood or tissue culture as the only positive criterion and a high agglutination titer as strongly presumptive.

This study was completed without knowledge of Harris²⁰ prior report. In both, the approach to the problem and the results of therapy are in gratifyingly close accord.

Treatment has *not* been standardized in this Clinic. The current procedure is to give tetracycline 0.5 gram four times a day for two weeks. If good results are not obtained from this, the skin reactions are titrated with decimal dilutions of brucellergen and of brucella vaccine. Treatment is started with .05 cc. of a 1:1000 dilution of that strength of the vaccine which elicits a faintly positive delayed skin reaction to either of the test antigens. Nine increments of .05 are given, two per week. This schedule is repeated with successive concentrations, each ten times stronger than the last, until there is striking relief or until one course of concentrated vaccine is given with no relief. The concentration of the vaccine and the size of the increments are kept well within the tolerance of the patient. Failure to do so may result in marked intensification of symptoms.

In two patients, injections were discontinued because a 1:10,000,000 dilution of the vaccine caused repeated severe local and systemic reactions.

*Parke, Davis & Company.

This program is not the final answer to the chronic brucellosis problem. There is, obviously, the need for improvement in antibiotic and antigen therapy and in diagnostic procedures, including the interpretation of skin reactions to the several brucella antigens.

The following observations, based on an analysis of these cases, may help to reduce the number of therapeutic failures in the unfortunate victims of this debilitating disease.

1. Rigid adherence to Spink's^{1,3} arbitrary criteria for a positive diagnosis of chronic brucellosis deprives many similarly affected patients of the benefits which might be theirs from anti-brucellosis therapy.

2. A *tentative* diagnosis of chronic brucellosis should be made in those patients, *with compatible clinical findings*, who have a brucellergen skin reaction 3+ or stronger. Such patients should be treated as though the diagnosis was established. Nine of the 16 cases with negative or equivocal (1:80) agglutinations in Table II, obtained fair to marked relief when so treated. Further experience may show that clinically similar patients with weaker skin reactions to brucellergen or to other brucella antigens should also be diagnosed tentatively as chronic brucellosis.

3. A brucellergen skin test, comparable to the clinical use of tuberculin and histoplasmin, is a useful *screening* procedure for the detection of chronic brucellosis. This is supported by the reports of Castaneda⁴, and Harris^{5,20} and of Stevenson, Farris and Lewis⁷ who found positive agglutinations by the usual method in only 8 of 40 abattoir workers with positive skin reactions. However, a modified Coomb's technic demonstrated agglutinations in 37 of them. Other abattoir workers with negative skin reactions had no agglutinations by either method.

4. Patients tentatively or definitely diagnosed as chronic brucellosis should be treated first with an appropriate antibiotic program such as sulfadiazine¹⁴, chloramphenicol¹⁴, tetracycline^{8,9}, oxytetracycline¹⁰⁻¹³, chlortetracycline^{13,14,15}, erythromycin^{16,20}, or streptomycin in combination with any of the above^{10,12,15}.

When this is not effective, a desensitizing series of brucella vaccine injections (or other specific antigens^{2,20}) should be given. Nine of these cases were strikingly improved after a course of vaccine therapy. Six had not received antibiotics, while three had not been benefited by them.

5. It is assumed, obviously, that every effort be made to evaluate other causes for the symptoms. Failure of therapy does not invalidate the diagnosis of chronic brucellosis^{5,20}.

6. The brucellergen skin test was of more value than the agglutination test as a screening procedure in these cases. It can be done in the office. When it is positive all other confirmatory diagnostic procedures for brucellosis should be done (see below). It is estimated⁵ that *less than 5%* of cases of chronic brucellosis will be missed if agglutinations and blood cultures are *not* done.

7. More attention should be paid to contacts with infected hogs when investigating the environmental background. Contacts with Bang's disease are apt to be over-emphasized. Two of these cases had had contacts with infected sows. Five of the agglutination titers of 1:160 or over in Table II were to brucella suis. Spink has observed "Swine brucellosis is more of a threat to human health in some states than Bang's disease. . . . Because hogs and cattle often are found on the same farms, there is the possibility of transmitting the disease back and forth between the two animals."¹⁷

The following six case reports are presented to illustrate the major diagnostic and therapeutic problems encountered in these cases. Note that three of them failed to meet Spink's¹ criteria.

CASE 1. W.C., SYMPTOMS FOR THREE YEARS, 5+ BRUCERGEN, NEGATIVE AGGLUTINATIONS, COMPLETE REMISSION AFTER VACCINE THERAPY. A 33 year old white male physician, previously healthy, became ill at age 30 with severe malaise, fever and chills, profuse and frequent sweats, hepatosplenomegaly, acute arthritis of the right ankle, and temperature up to 103°. The acute illness lasted six months. He had a long history of raw milk ingestion and contacts with cattle. Agglutinations were negative. Blood cultures and brucellergen skin tests were not done then. He continued to have chronic fatigue, recurrent chills and fever, sweats, nervousness and backache. In the spring of 1955 he developed arthritis of the left ankle with tachycardia, profuse sweating, fever and malaise, which subsided partially after several weeks.

He was first seen here during an exacerbation in August 1955. The only abnormal physical signs were tenderness of the first lumbar vertebra and left ankle. Agglutinations were negative. The 5+ brucellergen skin test was characterized by a marked local reaction, regional axillary adenopathy, lymphangitis, pronounced inflammation of the left ankle, fever and prostration.

Despite negative agglutinations on two occasions, a tentative diagnosis of chronic brucellosis was made and vaccine therapy was begun with a 1:1,000,000 dilution. By October 1955 the backache and left

ankle were markedly improved and there was a gratifying sense of well being. All symptoms had subsided by March 1956. Vaccine therapy has been continued and there have been no exacerbations (September 1956).

CASE II. B.R., LOW GRADE FEVER AND ARTHRALGIA ONE YEAR, 5+ BRUCERGEN, POSITIVE AGGLUTINATIONS, NEGATIVE BLOOD CULTURES, NO RESPONSE TO ANTIBIOTICS, GOOD RESPONSE TO VACCINE THERAPY. A 22 year old white female laboratory technician had drunk milk from a Bang's positive herd for approximately one year. Agglutinations in February 1949, when knowledge of Bang's disease in the herd became known, were positive 1:40, with no apparent symptoms at that time. She was seen here first in January 1950 because of persistent low grade fever, fatigue, and arthralgia of the right hip and the knees for one week. There was slight pain on motion of the right knee. Agglutinations were positive, 1:160. The opsonocytaphagic index showed an immune response. In February 1950 the agglutination titer had risen to 1:320. A subsequent brucellergen skin test produced fever, regional lymphangitis, axillary adenopathy, flare-up of the affected joints, prostration and eventual sloughing at the site of injection. Two blood cultures were negative.

She was given a course of chloramphenicol without benefit. Vaccine therapy was begun in May 1950, with a 1:1,000,000,000 dilution. The concentration was gradually increased to 1:1,000. By August 1950 she was asymptomatic and treatment was stopped. In September 1952, fever, generalized joint and backache, malaise and fatigue returned. Agglutinations and three blood cultures were negative (see Castaneda above). Despite this, it was assumed that the symptoms were due to an exacerbation of chronic brucellosis. Chlortetracycline and streptomycin were given for two weeks without improvement. The temperature ranged from 99.0 to 99.8°. Sweating was prominent. Vaccine injections were started with 1:10,000 dilution and were continued for two years. Two months of injections brought complete relief from all symptoms. There has been no recurrence (June 1956).

CASE III. C.A., RECURRENT CHILLS AND FEVER WITH MULTIPLE ACHES AND PAINS FOR SIX YEARS, 5+ BRUCERGEN REACTION, NEGATIVE AGGLUTINATIONS AND BLOOD CULTURE, INCONSTANT RESPONSE TO VACCINE, SUCCESSFUL RESPONSE TO ANTIBIOTICS. A 42 year old previously vigorous white male farmer with persistent malaise, weakness, fatigue, multiple aches and pains, recurrent chills and fever for two

years, was first seen in 1943. He had drunk the milk from his Bang's positive herd for a number of years. Brucellergen skin test was 5+ and produced a marked exacerbation of all of his symptoms. Agglutinations and blood culture were negative. There was a good response to vaccine initially. It was discontinued in 1946 after being symptom-free for two years. In December 1948 the symptoms recurred and vaccine injections were resumed. They were stopped when symptoms persisted for more than a month. Perhaps they should have been continued longer.

Chlortetracycline was administered for ten days, one gram per day with marked relief. Six months later there was a mild exacerbation which responded again to chlortetracycline. There has been no recurrence (June, 1956).

CASE IV: H.M., SEVERE NEUROSIS, FATIGUE, WEAKNESS, MULTIPLE ACHES AND PAINS FOR SEVERAL YEARS, 3+ BRUCERGEN, POSITIVE AGGLUTINATION, NEGATIVE BLOOD CULTURE, FAILURE OF PSYCHOTHERAPY, FAIR RESPONSE TO VACCINE THERAPY. A 39 year old x-ray technician complained of malaise, headache, weakness, fatigue, fever and night sweats for over two years. Examination revealed adenopathy and hepatomegaly. She had been treated for over a year by a psychiatrist without improvement. The brucellergen reaction was 3+ in the 1:10 dilution, which was used to minimize the risk of a severe reaction to the test. Agglutinations were positive 1:640. Blood culture was negative. Antibiotics were not tried. Brucella vaccine injections were given for two years. Within six months fever had disappeared and all symptoms were much milder, and there was real improvement in her sense of well-being. This was thought to represent a "fair response".

CASE V: T.B., MULTIPLE SYMPTOMS FOR TEN YEARS, 5+ BRUCERGEN, NEGATIVE AGGLUTINATIONS, BRUCELLA ABORTUS CULTURED FROM STERNAL BONE MARROW, REPEATEDLY NEGATIVE BLOOD CULTURES, FAIR RESPONSE TO ANTIBIOTIC AND VACCINE THERAPY IN A PROVEN CASE. A 34 year old white male, mining electrician, was referred initially because of "anxiety neurosis with backache and multiple fibromyalgias". He had noted progressive night sweats, fatigue, chills and fever, recurrent enlargement of the cervical glands for ten years. He had drunk raw milk for many years. He had been treated by a psychiatrist prior to his hospital admission. Examination revealed nothing remarkable. Two agglutinations and blood cultures were negative. Culture from the sternal bone marrow was

positive for brucella abortus. The brucellergen skin test produced fever, prostration, regional lymphangitis and exacerbation of all symptoms. In January 1956 antibiotic and vaccine therapy were instituted simultaneously. Vaccine therapy was begun with a 1:100,000 dilution and progressed without reactions. Tetracycline two grams and one gram of streptomycin and dihydrostreptomycin alternately, were given daily for three weeks. There was some improvement in general strength but easy fatigue, backache, and occasional fever and night sweats persisted. In May 1956 while still taking vaccine injections, he developed a severe exacerbation of all symptoms. He was readmitted to the hospital. Enlarged left cervical glands were biopsied. There were no microscopic changes suggesting brucellosis. Cultures of the gland, bone marrow, and blood were negative. Agglutinations were positive, 1:80. Erythromycin^{16,20} one gram daily for one week did not help, so he was given tetracycline, one gram daily for ten days, with slight improvement. Vaccine therapy has been continued without interruption. Three months after the last hospital admission impotence, mild apprehension and back pain persisted. His major complaint was insomnia. The other symptoms had disappeared for the first time in ten years. This is interpreted as a fair response to antibiotic and vaccine therapy in a proven case.

CASE VI: H.H., ARTHRITIS EIGHTEEN MONTHS, 5+ BRUCERGEN, NEGATIVE AGGLUTINATION AND BLOOD CULTURE, FAILURE OF ANTIBIOTIC THERAPY, INTOLERANCE FOR MINUTE DOSES OF VACCINE, MARKED RELIEF FROM PHENYLBUTAZONE. A 58 year old white female, farm wife, with a long history of raw milk ingestion and contacts with cattle, was seen because of arthritis in the knees, shoulders, elbows, wrists, ankles and metacarpophalangeal joints of the hands for 18 months. The affected joints were tender, swollen and stiff. There were frequent night sweats and chills. A 5+ brucellergen skin test provoked severe inflammatory changes in the joints, prostration, fever, and nausea. Agglutinations and blood cultures were negative. Nevertheless, a tentative diagnosis of chronic brucellosis was made. Tetracycline, two grams daily for three weeks, did not help. Vaccine injections were begun. There was some improvement while taking the 1:100,000 dilution. However, her symptoms became worse after each injection of the 1:10,000 dilution. The vaccine was diluted to 1:1,000,000. Exacerbations and local reactions continued after each injection, so they were discontinued. Placebo injections of normal saline caused no reactions. On

phenylbutazone there was a prompt sustained remission of all symptoms. This was interpreted as a poor response to antibiotic and vaccine therapy.

SUMMARY AND CONCLUSIONS

1. The Brucellergen skin test is recommended as a screening test for chronic brucellosis. It is a simple office procedure. When strongly positive, all diagnostic tests for brucellosis should be done. Blood for agglutination tests should be drawn when the skin test is done, to avoid the reported possibility of producing agglutinations by the skin test. If the skin test is negative, it is unlikely that the agglutination test will be positive.

2. In 27 cases selected for study, 16 had negative or equivocal agglutination titers, but the skin reactions were strongly positive. These were *tentatively* diagnosed as chronic brucellosis. Eleven had positive agglutinations, 1:160 or higher. None had a positive blood culture but one had a single positive sternal marrow culture for brucella abortus. These were diagnosed *positively* as chronic brucellosis.

3. Tentatively diagnosed cases should be treated as though the diagnosis were positive. Appropriate antibiotics should be given first. When antibiotics are not effective, brucella vaccine or other appropriate antigen injections should be tried. Nine of the 16 tentatively diagnosed cases were benefited by vaccine therapy.

4. Strict adherence to the currently accepted^{1,3} diagnostic criteria will deprive many tentatively diagnosable victims of chronic brucellosis of the benefits of specific therapy. Successful specific treatment of tentatively diagnosed brucellosis should be considered as an additional diagnostic criterion.²⁰

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Hamsters Catch Common Cold

For what appears to be the first time, a hamster, a small squirrel-like animal, has caught a common cold, complete with runny nose, wheezing and swollen nostrils. This makes the hamster the only animal other than the chimpanzee to catch cold in a laboratory situation, according to five Maryland researchers. Investigators have tried to give colds to many other animals, but they all refused to catch them.

What makes the Maryland research important is the fact that chimpanzees are expensive, while hamsters are easily and economically obtained and easy to handle. In fact, they are "ideal" for common cold research, the researchers said in the September *Archives of Pathology*, published by the American Medical Association.

Four strains of cold virus (MR, C, RLR and D) were taken from human beings who had typical colds.

The viruses were given to suckling hamsters by nose. After three to seven days several sucklings in each group given the viruses exhibited the typical symptoms of a cold.

Other hamsters were exposed to the nose and throat washings from a person who had not had a cold in the past year. None of these animals caught colds. However, when they later received virus material from the hamsters with colds, they developed the typical signs. The hamsters who originally had colds did not develop them when given virus material a second time.

The researchers are Major Reginald L. Reagan (Ret.), Lt. Col. Eddy Palmer (MC), U.S. Army, Frances S. Yancey, M.S., Sing Chen Chang, Ph.D., and A. L. Brueckner, V.M.D., of the University of Maryland, College Park, Md.

Levallorphan in Obstetrics

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STANDER STATES that when administered to the mother, "practically every drug . . . has been known to pass into the fetal circulation."¹ This has been often observed by obstetricians, for when mothers in labor are given large sedative and analgesic doses of opiates and barbiturates, their babies are frequently troubled with respiratory depression.

Work with the narcotic antagonists has well demonstrated that these agents can prevent respiratory depression in patients who have received large doses of opiates. By inference, from Stander's statement, it is logical to assume that opiate antagonists also will pass into fetal circulation when administered to the mother. Thus, if opiates can depress the fetus, can not opiate antagonists reverse this effect? Indeed, this was shown to be the case by Gottschalk, et al.² They prevented fetal respiratory depression from Nisentil by using N-allylnormorphine in 42 patients. In patients not receiving opiate antagonists, a 4.2% incidence of fetal respiratory depression was noted.

Thus, when a supply of a new opiate antagonist, levallorphan tartrate*, became available for investigational purposes, it was decided to employ it along with opiate analgesia in 50 obstetrical cases in labor. The object of the study was to determine the optimum dose ratios of the levallorphan to the opiates Nisentil and Demerol in the prevention of fetal respiratory depression without affecting the analgesic and sedative properties of the opiates.

Cullen and Santos³ have reported that in post-operative use, the analgesic effect of levorphan is lost somewhat when it is employed with levallorphan tartrate in a 4:1 ratio. When levorphan-levallorphan were used in a 10:1 ratio, the analgesic properties of levorphan were unaffected while respiratory depression was absent.

The theoretical action of the opiate antagonists is that they have a greater affinity for the receptors of the respiratory center than do opiate drugs while the reverse is true with respect to the cerebral cortical receptors. Narcotic antagonists when given alone have a slight sedative action. They are not

stimulants and are of no value in respiratory depression of any origin except that which is caused by narcotic drugs.

RESULTS OF THE STUDY

Opiates were administered for analgesic purposes to 50 patients in labor, according to their apparent requirements. Each patient also received hyoscine, usually 0.5 mg., except one patient who received 0.4 mg. atropine. Some received Thorazine and barbiturates as well. Varying doses of levallorphan were administered to test its action. In the early part of the study a Nisentil-levallorphan, 60:1 ratio was employed according to Fleming's recommendation⁴.

In 13 patients the only opiate administered was Nisentil and in 16 more, Nisentil and Demerol both were used. Demerol was used alone in 21 cases. As may be seen in Table I, the 29 patients who received Nisentil delivered babies 20.7% of whom evidenced respiratory depression in varying degrees. In the group receiving Demerol (some of whom also received Nisentil), 10.8% of the babies showed some depression.

Table II gives a breakdown of the total amount of Nisentil received by the 29 mothers, the accompanying doses of levallorphan and the fetal results. No fetal depression was noted when 2 mg. levallorphan was administered. Here, Nisentil-levallorphan average ratio was 38:1. Where levallorphan, 1 mg., was administered, the average ratio was 57.9:1 and a 31.6% incidence of fetal depression was obtained. Stated another way, with the six depressed babies, the Nisentil-levallorphan ratio administered to the mothers was 70:1 and with the 23 non-depressed babies, that ratio was 47.33:1.

If only the patients who received Nisentil *without* Demerol are considered, the mothers who delivered depressed babies had Nisentil-levallorphan in a 76:1 average ratio. With the non-depressed babies, this ratio was 45.7:1. In this same group, where only 1 mg. levallorphan was administered, the 7 patients delivered 5 depressed babies (71.3%) and the average Nisentil-levallorphan ratio was 71.3:1.

Among the patients receiving Demerol-levallorphan with or without Nisentil, if the babies were

* Generic name for levo-3-hydroxy-N-allylmorphinan tartrate—Supplied by Dr. Thomas C. Fleming, Hoffman-LaRoche, Inc., Nutley, N. J.

depressed, the ratio was 100:1; if non-depressed, the ratio was 106:1. Thus it seems that of the babies whose mothers received Demerol plus levallor-

both Demerol and Nisentil. The average Demerol-Nisentil-levallorphan ratio here was 105.3:44.2:1. One of the least variable factors in the series was

TABLE I
FETAL RESPIRATORY DEPRESSION FROM MATERNAL SEDATION

	Nisentil	Demerol plus Nisentil	Demerol	Totals		
Hyoscine	6 — 4 (66.67%)	4 — 0	4 — 0	14 — 4 (28.6%)		
Thorazine Hyoscine	4 — 0	6 — 1 (16.67%)	9* — 1 (11.1%)	19 — 2 (10.5%)	30 — 2 (6.67%)	
Barbiturate Thorazine Hyoscine	1 — 0	6 — 0	4 — 0	11 — 0		17 — 3 (17.6%)
Barbiturate Hyoscine	2 — 1 (50%)	0 — 0	4 — 2 (50%)	6 — 3 (50%)		
Totals	13 — 5 (38.46%)	16 — 1 (6.25%)	21 — 3 (14.3%)			
	29 — 6 (20.7%)					
			37 — 4 (10.8%)			

Upper figure—total in each group.
Lower figure—number of depressed babies in each group.
%—percentage depressed babies.
*One patient received Atropine 0.4 mg. instead of Hyoscine.

phan, with or without other agents, any fetal depression must be explained on the basis of other drugs or factors.

anesthesia, since it was for the most part general anesthesia. Table III lists the agents used. The 17 patients in Table I who received barbiturates

TABLE II
FETAL RESPIRATORY DEPRESSION IN PATIENTS RECEIVING
NISENTIL AND LEVALLORPHAN

	Nisentil: Total maternal dose in milligrams				Total Patients	Depressed Babies	Average ratio Nisentil-Levallorphan
	40	80	100	120			
Levallorphan 1 mg.	11 — 2	7 — 3	1 — 1	0 — 0	19 — 6	31.6%	57.9:1
	2 — 0	7 — 0	0 — 0	1 — 0	10 — 0	0%	38:1

Upper figure—total in each group.
Lower figure—number depressed babies in each group.

Table I further shows that the least fetal depression occurred among the group of mothers receiving

includes the 8 of Table III in whom the barbiturate was used intravenously as anesthesia. Depending

TABLE III
ANESTHESIA

Nitrous oxide	10
Nitrous oxide—ether	24
Ether	1
Nembutal	7
Seconal	1
Cyclopropane	1
Trilene	1
Procaine local	1
None	4
Total	50

Note: In two patients who received no anesthesia, none was required since the sedation was adequate for delivery.

on the prior opiate sedation, anesthesia with intravenous barbiturates is usually quite effective but must be given at the last possible moment to prevent further fetal depression. A nursing problem also obtains here, since the patients so anesthetized do not "react" for several hours. General anesthesia in obstetrics can well contribute to fetal depression at birth.

Two fetal deaths occurred in the series. One was from a congenital heart anomaly. The second occurred when the baby was one week old. The baby had evidenced no initial respiratory difficulties but had a rectal temperature of 100° F. at birth and pursued a stormy course in the nursery. It died at home after being discharged from the hospital on the fourth day apparently in good condition. Autopsy disclosed aspiration pneumonitis.

SUMMARY AND CONCLUSIONS

1. Drugs administered to the pregnant mother pass into the fetal circulation.
2. Since opiates administered to mothers in labor may cause fetal depression, opiate antagonists should counteract this effect.
3. An opiate antagonists, levallorphan tartrate, was administered to 50 mothers in labor who were sedated with Nisentil and/or Demerol with or without other agents.

4. When administered to mothers sedated with Demerol 100 mg., levallorphan in doses of 1 mg. effectively prevents fetal respiratory depression.
5. Levallorphan likewise counteracts the depressant effect of Nisentil. To prevent fetal depression, the maternal Nisentil-levallorphan dose ratio should be 40:1, or certainly not more than 50:1.
6. One may conclude from the data derived from this series that if a mother receives both Demerol and Nisentil in doses approximating 100 mg. and 40 mg., respectively, it is apparently not necessary to administer a double quantity of levallorphan to prevent fetal depression, since 1 mg. seems to be adequate. In other words, this study tends to indicate that when maternally administered, 1 mg. levallorphan blocks the fetal respiratory depression caused by Demerol 100 mg., Nisentil 40 mg., or both.
7. It was observed that any combination of Nisentil, Demerol, hyoscine, and/or levallorphan may be mixed in the same syringe and administered intramuscularly or intravenously without undesirable effects or per se alteration of any of the individual properties of the drugs.
8. Levallorphan is a valuable drug for use in obstetrical sedation with opiates, in that it can prevent fetal depression but permit desirable maternal narcosis.

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Milk of Calcium Bile

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THIS IS a relatively uncommon clinical and pathological entity which has rarely been diagnosed pre-operatively.

Normally and usually the gallbladder is not visualized, or, at best, may be faintly visualized with plain radiographs of the abdomen. Consequently, increased opacification of the gallbladder area implies an increase in the concentration of opaque material within it or its wall. This dense gallbladder shadow in association with one or more calcifications in the vicinity of the cystic duct is pathognomonic of milk of calcium bile.

Numerous theories have been presented to explain the varying composition of biliary contents and gallstones as well as the mechanisms of their formation but there is agreement that infection and/or stasis are predisposing factors. Stones very rich in cholesterol may form in the gallbladder when stasis is mild, but with increasing chronic obstruction of the cystic duct, the gallbladder contents contain decreasing amounts of cholesterol and increasing amounts of calcium and bile pigments. Complete or nearly complete obstruction, combined with chronic cholecystitis, predisposes to the increased deposition of calcium carbonate.

Apparently this was the sequence of events in this case, i.e., the patient had cholecystitis resulting in the formation of one or more gallstones which obstructed the cystic duct, thus causing a marked progressive increase in the calcium concentration of the gallbladder contents leading to the entity known as milk of calcium bile, synonymous with calcium bile, limey bile, calcium mud, calcium sand, calcium soap, etc.

CASE H. B.—This 18 year old white married female was admitted to The Memorial Hospital, Danville, with sudden onset of severe epigastric pain associated with nausea and vomiting commencing after the evening meal the day of admission. In the past history there were three similar attacks: (1) Four years ago "after eating some green apples", (2) Two years ago "after eating a banana sandwich", and (3) Three months ago when she had a similar sudden attack of epigastric pain associated with vomiting. She has never been jaundiced. She has had severe constipation for years requiring dietary and proprietary measures. At no time has

there been intolerance to any particular foods to suggest gallbladder disease. The balance of the history and review of systems was non-contributory.

Physical examination revealed pain and tenderness in the epigastrium and both upper quadrants with some guarding but was otherwise non-contributory. TPR: 100⁴-90-22. Laboratory studies: Hb.: 13.7 gms.; WBC:9,200, P-64(bands-8, segs-56), L-28, M-3, E-4, B-1; urinalysis: negative but for rare RBC and WBC; serum amylase: 57 units (normal: 40-150 units); serology: negative.

RADIOGRAPHIC INTERPRETATION:

The diagnosis of this lesion is frequently obscured by the administration of cholecystographic media prior to x-ray examination. It is of importance to emphasize that these are plain radiographs in this case and the patient did not receive cholecystographic or urographic media at any time.

AP and lateral erect films (figures 1 and 2) reveal an opacification with a smooth convex lower border and a somewhat irregular horizontal upper limit in the position of the gallbladder. In addition, there is a small calcification located superiorly probably representing a calculus in the cystic duct.

Recumbent films (figures 3 and 4) readily reveal this opacification represents the gallbladder contents and also demonstrate the continuity with the small opaque calculus in the cystic duct.

A pre-operative diagnosis of calculus in the cystic duct with milk of calcium bile in the gallbladder was proposed.

OPERATION

There was a small stone in the cystic duct. The gallbladder was normal in size but its wall felt thickened. Palpation of the gallbladder revealed its contents were semi-solid. The rest of the biliary tract appeared normal. The gallbladder and cystic duct containing the solitary stone were excised.

The patient made an uneventful recovery.

PATHOLOGY (Figures 5 and 6)

Gross: Gallbladder measures 5.5 cm. in length by 1.8 cm. in diameter and is distended with a mushy, pultaceous, chartreuse colored material grossly appearing to be comprised of cholesterol and calcium. The mucosal surface of the gallbladder is finely granular, greenish-gray. Also received was



Figs. 1, 2, 3 and 4.—Refer to radiographic interpretation.

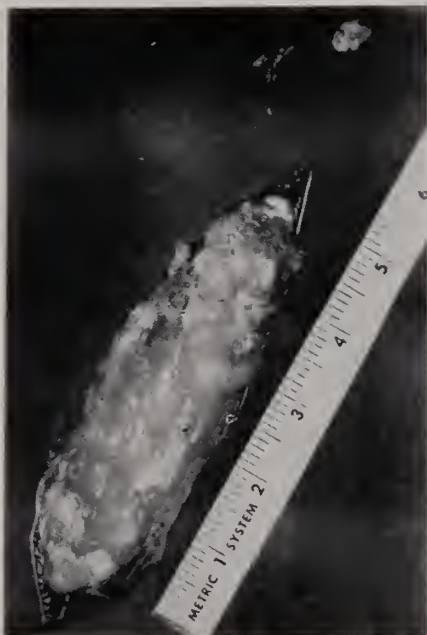


Fig. 5.—Surgical specimen intact along with portion of cystic duct and a small calculus contained therein.

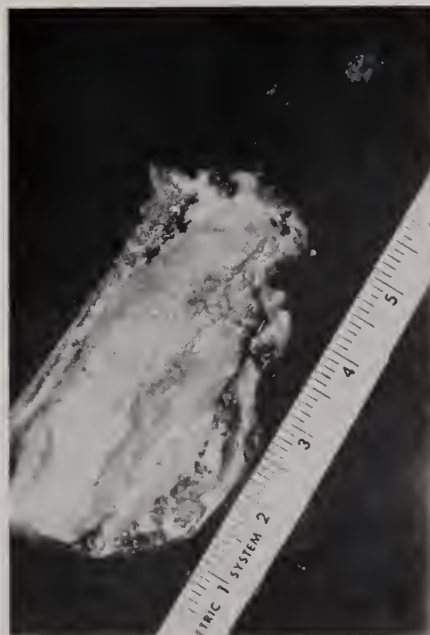


Fig. 6.—Gallbladder opened to reveal the appearance of its calcarious contents.

the cystic duct measuring 9 mm. in length and containing one small calculus measuring 4 mm. in diameter.

Microscopic: The normal columnar epithelium of the gallbladder is focally eroded and overlaid with small calcareous granules. Beneath the epithelium there are focal areas of inflammatory cells. The gallbladder wall shows an hypertrophied muscularis.

Diagnosis: Minimal chronic cholecystitis with a calculus in the cystic duct and milk of calcium bile.

CHEMISTRY

Human gallbladder bile is a solution normally containing 50-56 mg. % calcium and 150-200 mg. % cholesterol but no precipitated matter.

In this case an entirely different situation presented in that the vast majority of the sample was precipitated calcium salts which were wetted and stained by a small amount of residual gallbladder bile.

There was a 3.25% decrease in weight by drying the sample demonstrating the large concentration of solid matter.

Quantitative analysis revealed 5640 mg. % calcium (a 100-fold increased over normal) and 17 mg. % cholesterol which is probably of no significance due to the small amount of actual gallbladder bile present.

SUMMARY

A case of milk of calcium bile with characteristic clinical, radiologic, operative and pathologic findings is presented. The literature is reviewed and the pathogenesis of this unusual lesion is discussed.

Note: Acknowledgement is extended to Dr. H. A. Wiseman, III who was the attending physician in this case.

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*The Memorial Hospital
Danville, Virginia*

Let's Reminisce!

In the discussion of a family, poisoned probably by custard (Richmond Academy of Medicine, May 1874), Dr. F. B. Watkins remembered having heard authentically some years ago of fifty or more persons who were poisoned by eating frozen custard seasoned with vanilla. He never permits the flavoring to be used in his family.

"Boxing Your Insurance Problems"

CHUCK DAVEY

Detroit, Michigan

ALTHOUGH it may seem that there is no correlation between insurance and fighting, I can assure you that there is. If you don't think so, you should try writing it sometime—although I must admit nobody has taken a punch at me yet. But, seriously, a comparison of the two fields can be drawn. In the ring, a slugger bombards his opponent with punches hoping that enough telling blows will land in the vulnerable spots to accomplish his purpose. A boxer, on the other hand, with the same objective in mind, goes about the task systematically, in order to realize maximum effectiveness from the expended energy. Similarly, some men fight their insurance problems, hoping that by sheer numbers of undirected purchases of insurance that they will indemnify themselves against all loss. A more scientific approach to their insurance needs would, like the efforts of the boxer, realize maximum effectiveness from the energy of their premium dollars.

All men are faced with the possibility of loss. For that reason you men, as doctors, need, and have, such coverages as (1) mal-practice insurance, (2) casualty coverages, on buildings and equipment, (3) income protection in the event of your disability, (4) hospitalization coverages and (5) life insurance.

Benjamin Franklin once said: "It is a strange anomaly that men should be careful to insure their houses, their ships, their merchandise, yet neglect to insure their lives, surely the most important of all to their families, and the most subject to loss." My talk today deals with the protection of these human life values to which Ben Franklin referred.

In this highly competitive money economy of ours, an advanced education is a definite asset. You men have had the benefit of at least 20 years of education that has cost thousands of dollars, which has made you even better equipped to provide security for your families and yourselves.

You have all experienced the struggles of a young doctor, so I don't have to emphasize the fact that for the young practitioner, income dollars are largely

potential. For the senior medical students the money is all going out; and for the interns and residents it just seems like it's all going out. But despite their lack of actual income at this time, their potential earnings amount to a fortune.

Let's assume that they will earn an average of \$10,000 a year. In 30 years of practice, they will have actually earned \$300,000. Now, if each of you had property that would give you an income of \$10,000 a year for the next 30 years, what value would you place upon it? A conservative estimate would be \$100,000, and I'm sure you'll agree that the property should be insured for that amount. However, for young physicians to try to insure themselves for any comparable amount in the next few years would, in all probability, not only be impractical—but impossible. But, that does not mean that they should wait until they can insure themselves for their actual human life value, before starting their insurance program. Most of you have your insurance programs charted at this time, and although some of you have begun by "slugging" your insurance problems, over the past several years you have undoubtedly worked out a solution that you and your insurance counsellor feel fits your needs.

Because your early coverages proved inadequate to meet the goals you ultimately set up did not mean that these purchases were lost. On the contrary, you found out that life insurance policies are very flexible and it cost you very little to alter them. The biggest loss due to inadequate planning of an insurance program in the early stage of your career was not felt by you gentlemen here today, but by the families of your colleagues who passed on prematurely.

Because of your common dedication to the good of mankind, you have a feeling of brotherhood that most occupations do not enjoy—or if I may use the vernacular to express it—an esprit de corps. I think it is partly because of this feeling toward your young colleagues that you have assumed the additional responsibilities of county society officers. At least I don't think the monetary remuneration is what prompted you to accept your present office as experienced physicians. Your advice and counselling undoubtedly is sought beyond the strict realm of medicine. I think one of the services that you can

Presented at the County Society Officers' Conference of The Medical Society of Virginia, Lynchburg, September 16, 1956.

CHUCK DAVEY, *Special Agent, The Prudential Insurance Company of America.*

give young doctors is your advice on a proper approach to their life insurance problems, based upon your experience with life insurance and the fact that you faced relatively the same problems several years ago.

One salient point I feel should be drawn to their attention, is that, once they begin private practice, they are no longer included under social security. For the family man with young children this means that he must have as much as \$40,000 of private insurance to provide comparable protection.

You may wonder how you can advise a young physician to box these insurance problems rather than fight them. Have him consult a competent life insurance underwriter who will make a recommendation *after* he has outlined the minimum dollar needs of his family. From experience, you have found that you can get anybody in the insurance business to write life insurance, but not all of them can come up with a logical explanation of why they are recommending a particular type of coverage.

If you do not get across another point in your counselling of young men on their insurance problems, you will have done considerable service if you impress upon them that insurance, like medicine, is a vast field and that dealing with one man for *all* insurance needs is like expecting one doctor to cure all physical ailments. In other words, have them obtain the services of a competent life underwriter for life insurance, and the services of a casualty agent for their casualty coverages.

I have dwelled at length on the problems that face a young doctor of today. Now, I would like to comment briefly on life insurance as it applies to you. In your personal life insurance programs, you have found that insurance serves not only a protective purpose for you, but because of your higher incomes, it provides an ideal fixed dollar vehicle with which you can build up cash reserves and savings. Most of you undoubtedly have investments in addition to your life insurance, but I will venture that you will all agree that life insurance requires less of your time and presents fewer management problems than any other investment you may own. You have seen, and probably learned from experience, that it is easier to keep your mind in your business, if you put your money in life insurance.

You have also learned from experience that modern business is a technical and complex field. Within the last few decades, the need for professional advice in financial planning has increased because of many factors. Among these, gift taxes, state inheritance, and federal estate taxes are probably the most im-

portant. There are volumes of regulations explaining these laws and court decisions interpreting them and there has been constant amending of statutes. All have conspired to produce a wilderness in which the property owner needs skillful guidance.

Fortunately, for you and other professional men like yourselves, there has developed in the past few years a new field of endeavor called "Estate Planning". Within this field, there are now many trained full-time specialists who can assist property owners in planning their affairs to meet these complexities. These men are often referred to as the "Estate Planning Team"; and it generally includes the lawyer, the life insurance underwriter, the trust officer, and the accountant.

Estate Planning is nothing mysterious, but it is necessary—and contrary to what the term may imply to you, this is not a service for millionaires only. In reality, it is the reverse. The smaller the estate, the more costly mistakes become. Therefore, the more careful we have to be. I believe the best and most simple definition of estate planning that I have run across is: *"the planning of a person so that his property and earnings will do him the most good while he lives and the family the most good after he is gone."*

Life insurance is an essential commodity in any well rounded estate plan. It is a guaranteed accumulation of savings, and as such, lends itself very well to many estate problems—whether it is to provide liquidity, or income, or to conserve the value of an estate by meeting estate tax and inheritance problems.

In medicine you may pay a little more for the services of a specialist, but I am sure you will agree that it's worth it. In life insurance you will pay no more for the services of a specialist because the commissions are the same no matter who writes the business for you. You are entitled to these expert services; whether or not you receive them is entirely up to you. In life insurance, it isn't so much the company you do business with that counts, as it is the agent you select to render this service.

I'm not saying that you can't save money in the purchasing of your life insurance. But your biggest savings comes when you buy the insurance that fits your individual needs. Life insurance like medicine is effective only if it is administered by a professional.

20104 James Couzens Highway
Detroit 35, Michigan

Clinicopathological Conferences

Of The Medical College of Virginia Hospital

Prepared and Edited by

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Richmond, Virginia

Case #183 (A9157)

A ONE-MONTH OLD female child was admitted to M. C. V. Hospital on June 5th because of chronic constipation, straining at the stool, and the recent appearance of a mass at the anus during straining. The infant, the first child of healthy parents, was born one month prematurely and weighed 5 lbs., 6 oz., at birth. She was discharged home after five days on an evaporated milk formula. From the beginning the infant ate poorly and spit up a good deal of each feeding. The stools had always been small, hard, and yellow. Approximately one week before admission the baby began to strain more during defecation and at this time the mother noted a mass at the anal orifice. On the day before admission the mother noted some bright blood on the diaper. There had been no vomiting, fever, or other symptoms and the history was otherwise negative.

Physical Examination: Temperature 98.6, weight, 5 lbs., 13½ oz., pulse 150, respiration 30. The general appearance and the general physical examination were not abnormal with the positive findings being confined to the anus and rectum. On straining there appeared to be protrusion of the rectal mucosa on the left side of the anus and laxity of the perineum. Digital examination revealed a tubular cystic mass encroaching on the left side of the anus, rectum, and rectosigmoid. The mass appeared to be between the rectum and pelvis and intimately involved with the rectum. It extended as high as the examining finger. There did not appear to be any connection between the mass and the sacral and retroperitoneal areas posteriorly, nor did there appear to be any connection by a stalk between the mass and the rectal mucosa higher up. The examining finger could not be inserted between the mass and the external circumference of the anus. The lumen of the anus and rectum appeared adequate for bowel movements.

Laboratory Data: The urine was clear, alkaline,

negative for sugar and acetone, and contained a few epithelial cells, 4-6 WBC, 0-1 RBC; quantity was insufficient for specific gravity. Hemoglobin 15.2 grams, WBC 17,800 with polys., 1 eosin., 25 lymphs., and 32 monocytes. Smear showed a strong shift to the band stage and severe toxic changes. Serum sodium 145, potassium 6.0, chlorides 97, and CO₂ 22 mEq/L, respectively. BUN 17.

A barium enema on the day after admission revealed a very redundant but normal-sized colon with questionable malrotation of the cecum. Filling was not completely satisfactory. Evacuation was poor. Chest x-ray revealed a normal cardiac shadow with slight prominence of the bronchovascular markings throughout and linear densities in the right upper lung "compatible with linear atelectasis or residual changes of pneumonia". Two days later catheters were inserted into the bladder and vagina and films made following injection of lipiodol. No definite abnormalities were noted on these films, though the bladder filling was incomplete. An intravenous pyelogram showed satisfactory function of normal-sized, undisplaced kidneys. A G-I series with lipiodol was also negative. Sigmoidoscopic examination for a distance of 6 cms. was negative.

Following admission the baby was placed on a Similac formula. She took feedings fairly well for the most part with a variable amount of regurgitation. The abdomen became distended by the 6th hospital day and the distention was not relieved by enemas. The infant continued to strain during defecation. The weight has increased to 6 lbs., 4 oz., by the 16th hospital day, when a laparotomy was performed.

CLINICAL DISCUSSION

DR. HARRY WARTHEN*: A one-month old child was readmitted to the hospital because of failure to gain, chronic constipation, straining at stool and the recent appearance of a mass to the left of the anal

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orifice. The infant spit up after each feeding but there was no projectile vomiting. Blood had been noted on the diaper.

Physical examination showed a protrusion of the rectal mucosa on the left of the anus with relaxation of the perineum. The mass was described as tubular and cystic and extended upward as far as the bowel could be palpated or visualized. It was closely attached to the bowel and did not appear to involve the adjacent bony structures. A finger in the rectum could not be insinuated behind the mass.

The laboratory findings were not helpful or significant aside from toxic changes noted in polys on blood smear. The following x-ray studies were made: On June 6 a chest film was taken and a barium enema was given. The lung fields showed probable post-pneumonic changes and the colon was redundant. On June 8 efforts to demonstrate the bladder and vaginal outlines with lipiodol were not too successful. The barium enema given two days previously had not been expelled and an unusual finding was present in the pelvis. A large gas-filled viscus which resembled an enlarged sigmoid and rectum was present and superimposed on this structure was a smaller structure which contained a small amount of barium. On June 11 an intravenous pyelogram showed nothing remarkable about the kidney but the large viscus in the pelvis now contained some thin barium mixture as well as air. On June 13 gastro-intestinal x-rays following the ingestion of lipiodol were not helpful except for again revealing the thin barium mixture in the pelvis noted two days previously. On June 22 a final series of flat films of the abdomen and an x-ray of the chest showed much air in the small bowel and relatively less air in the lungs. This last set of x-rays was made one day following an operation designed to relieve the ever increasing abdominal distention.

Among the diagnoses that should be considered in this unusual case are: Fibrocystic disease of the pancreas (meconium ileus); the age of this premature infant, the intestinal stasis and the chest findings were compatible with this diagnosis but the constipated yellow stools, the absence of primarily small bowel involvement and most important, the evident abnormality of the rectum, rules out this condition. A meningocele presenting anteriorly could cause the deformity but the intact outline of the sacrum makes this virtually impossible. A mesenteric cyst would be most unlikely in this terminal location and the early age of this child would also rule out this possibility. An intussusception would have to be considered but the extraluminal location of the mass

would preclude this condition. This would also rule out a large polyp.

The findings were those of a cyst pressing on the rectum, but apparently communicating with the bowel and presenting on the perineal floor. The most likely diagnosis in view of these findings was an enterogenous cyst or diverticulum, or as such conditions are usually termed, a duplication of the bowel. This diagnosis is favored by the following considerations: The age of the patient, for these abnormalities are congenital. The cystic, tubular nature of the structure under consideration for these lesions reproduce the general nature of the intestinal tract to which they are related anatomically. The presence of gas and later some dilute barium mixture in the cystic area points to a communication between the normal bowel and the diverticulum.

The passage of blood per bowel suggests the diagnosis indicated, for trauma to the thin septum between the normal and abnormal structures is prone to occur. The x-ray films offer almost incontrovertible evidence of the nature of the abnormality. The fact that duplication of the bowel, which may occur at any level of the gastro-intestinal tract, is least likely to occur in the rectum, places the burden of proof on one who makes this diagnosis but the other evidence is too strong to be disregarded. Similar cases have been described by Cogswell and Thompson¹ and Caffey².

DR. HARRY WARTHEN'S DIAGNOSIS

Duplication of the distal colon and rectum with incomplete intestinal obstruction.

PATHOLOGICAL DIAGNOSIS

Duplication of intestinal tract beginning in terminal ileum and ending in blind sac upper portion of rectum. Left accessory lung.

DR. K. NELSON*: "Is there any further discussion of the clinical findings? Dr. Morton, I believe you saw this patient first in your office."

DR. HELEN MORTON†: "Yes, the mother brought the infant at the age of 4 weeks with what appeared at first glance to be a prolapse of the rectum. However, the examination showed that the bulging through the anus did not involve the entire circumference as in the usual story, but it was a partial ring. Just what the nature of the mass was presented a problem, although it appeared to be consistent with a duplicated rectum and the infant was sent to the hospital for corrective surgery."

*Professor of Clinical Medicine

†Instructor in Pediatrics

DR. ARNOLD SALZBURG†: Preoperatively, I agreed with Dr. Helen Morton's impression of the possibility of a duplication of the colon. Various x-ray studies of the genito-urinary tract were done in order to demonstrate the presence of fistulae, since such between the bladder and rectum are prone to occur. However, in this patient none were found.

A rectal tube inserted prior to operation was very helpful at the time of operation because it illustrated very nicely the normal colon channel.

It was chosen to perform an exploratory laparotomy in the management of this problem because the diagnosis preoperatively, although highly suspicious, was somewhat in doubt. Accordingly, the principle of not performing exploratory operations through the anus in this age group was followed. Unfortunately, the perineal approach with opening of the septum between the two recti would have provided a definitive operative procedure. Instead, however, a colon mucous fistula was created. It was planned at a second stage to divide the rectal septum from below and close the colostomy.

DISCUSSION OF PATHOLOGIC FINDINGS

DR. SAUL KAY†: The surgeon, Dr. Arnold Salzburg, found at operation two terminal ilea fused proximally to form a common ileum. There were two appendices, two ceca and a duplication of the entire colon and upper rectum. The lateral portion of the rectum (true rectum) ended in a natural anal opening, but the medial or duplicated portion ended in a blind sac. Feces filling the medial or duplicated rectum caused pressure and bulging of the wall of the true rectum so that an intraluminal herniation or mass was noted clinically at the anus.

This form of duplication is rare and I have been unable to find an identical description in the literature. The closest related anomaly is illustrated by Ravitch³ in his paper entitled: "Hind Gut Duplication—Doubling of Colon and Genital Urinary Tracts".

The surgeon removed the duplicated terminal ileum, its corresponding cecum, ascending colon and appendix (Fig. 1). Pathological examination showed no remarkable features, except for dilatation of the lumen and thickening of the muscular coats.

Most duplications occur in the terminal ileum, and are blind sacs—hence the term enterogenous cysts or enterocystomas. The epithelium which lines a duplication always resembles some part of the alimentary tract. The closed sacs must be differen-

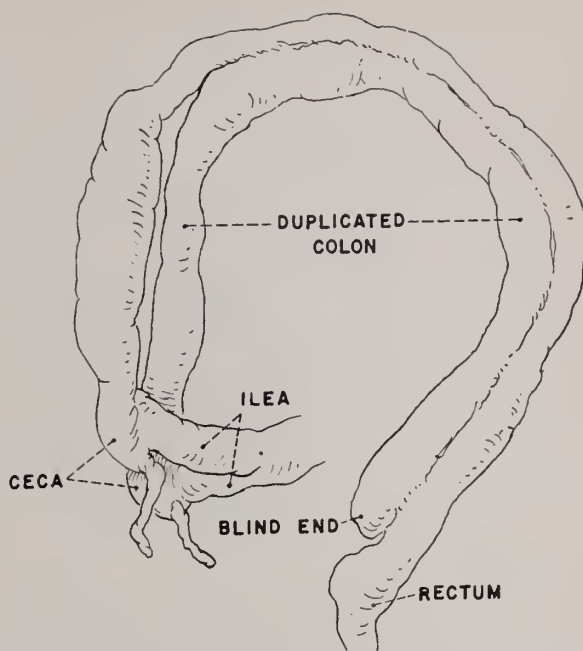


Fig. 1.—A schematic drawing of the duplication of the ileum, cecum and entire colon with the duplicated, medial rectum ending in a blind sac.

tiated from mesenteric cysts which are generally lymphatic in origin. The duplications often show fusion of the muscular coat with the main bowel, and have well-defined layers of the normal bowel. The luminal contents will vary with the epithelial lining, and depend on whether or not communication with the main bowel exists. On the other hand, mesenteric cysts are thin-walled, occupy the mesentery and contain a lymph-like fluid.

DR. GORDON HENNIGAR*: The findings in the intestine have been adequately described so that I will confine my remarks to an additional incidental finding in the lungs. There was discovered an accessory lung lying in the posterior portion of the left upper part of the pleural sac. This lung possessed its own pleura and like the other lobes of the lungs was well aerated. This latter finding accounts for the fact that no mass or lesion was seen by x-ray. If atelectasis, fibrosis, cyst formation, pneumonia, or bronchiectasis had been present there would have been positive radiological findings. The lungs with their six lobes and their contained blood supply were injected with Vinyl plastic by Dr. Robert Ferguson. The results of this showed that the accessory lung was supplied on the arterial side by a branch of the left main pulmonary artery. The venous return was by the pulmonary veins. An additional anomaly was drainage of the azygous system into a left per-

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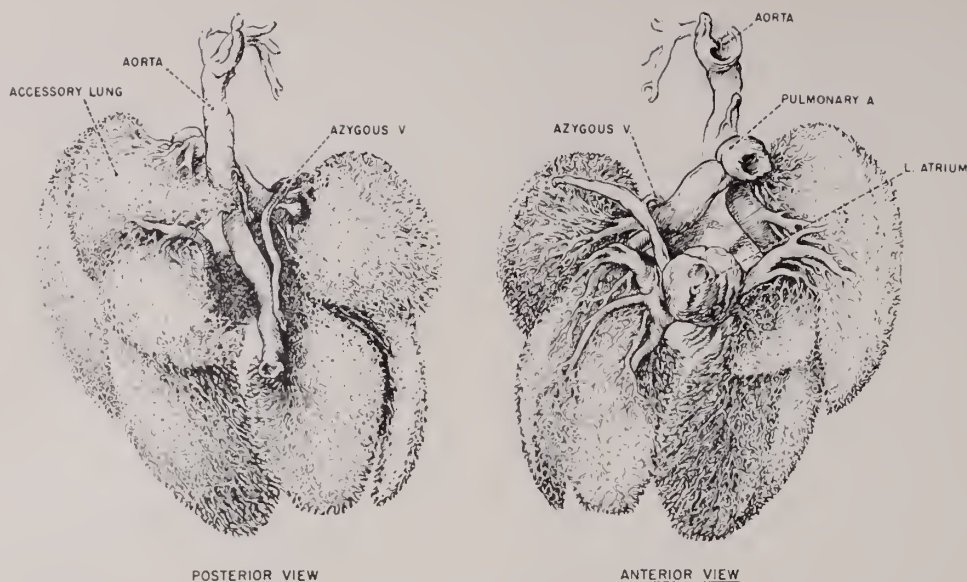


Fig. 2.—The anterior and posterior views of the vinyl plastic cast of the pulmonary vasculature showing the left accessory lung and the anomalous course of the azygos vein which drains into the persistent left superior vena cava, which in turn empties into the left atrium.

sistent superior vena cava (duct of Cuvier) which drained into left atrium. In an infant this would not be a cause of cyanosis, however in the adult it may bring about the cyanotic condition.

Anomalies of lung lobes may be divided into three main categories—azygous lobe, accessory lobe with sequestration and accessory lung with one or more lobes, as in this case. Azygous lobe is unilateral, on the right side as a rule and rarely is bilateral. On the surface of the lung a groove is seen where the vein “pinches” the surface. Cyst formation and fibrosis in the lobe as a result of vein pressure on bronchi is seen by x-ray. Pulmonary sequestration occurs in an accessory lobe supplied by one or more branches of the aorta. This systemic pressure causes changes in the alveolar capillaries which are accustomed to a much lower pulmonary pressure. There is resulting hemorrhage, atrophy, necrosis and cystic change. In the case today, the blood supply was

from the pulmonary artery and ran a normal course so that no sequestration is to be expected. As to the cause of death in this case, the mechanism or mechanisms are poorly understood in this age group. It is a commonplace observation that infants in this age group often do very poorly after extensive abdominal surgery. One may speculate and propose electrolyte imbalance, occult infection and many other attractive modes of demise. In summary, three separate anomalous conditions were present in this infant—duplication of the intestinal tract, accessory lung, and persistent left superior vena cava.

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Edited by

RICHARD J. ACKART, M.D.

Blue Shield Is the Doctor's Plan

Have you ever stopped to ask yourself, doctor, why some 37 million Americans have enrolled in Blue Shield, the medical profession's prepayment program, in little more than ten years' time?

Blue Shield and its companion Blue Cross have obtained a truly stupendous enrollment, at a minimum of expense and by "low pressure" sales methods. This accomplishment has been possible because of the almost universal desire for protection against the costs of unpredictable illness. The main reason so many people have chosen Blue Cross-Blue Shield is the well-known fact that it is recommended and supported by the medical profession; people have a special confidence in Blue Shield as a medical-surgical prepayment plan because it is their doctors' plan.

Doctors and hospitals through these Plans have created for themselves immeasurable good will. But the preservation of this great asset depends upon eternal vigilance on the part of physicians and hospitals.

When the doctor speaks well of Blue Cross-Blue Shield, when he tries to conserve the resources of the Plans against misuse, when he conscientiously fulfills his voluntarily accepted obligations as a Participating Physician—then he is helping to preserve and increase this asset. He is helping to make ever more formidable the Plans' aggressive defense of the freedom of medical practice.

Blue Shield is also a bridge of common interest and mutual benefit between the doctor and his patient; it is evidence to each of the trust and confidence of the other. Blue Shield is an assurance to the patient of prepaid service when he needs it—and to the doctor, it assures payment for services rendered. Actually thousands of Virginians who are ineligible for or cannot afford other protection against sickness expense have been enrolled by Blue Shield, and of these members there are many who, without Blue Shield, would have no funds from which to pay a fee. Certainly the majority of these people really want to compensate their doctors for the interest, time, and ability expended in their behalf and

for their benefit. Through Blue Shield membership they are doing so—and are taking pride in the knowledge that, despite their meagre or modest means, they are living up to their obligations and responsibilities as free Americans. Through Blue Shield participation their doctors are meeting them half way.

And Blue Shield Is Also Everybody's Plan

Occasionally a physician asks why Blue Cross-Blue Shield membership is offered to just about everybody, regardless of their incomes or their inability to pay. Why not restrict membership to those persons who are close to being medically indigent?

Consideration of the basic dynamics of Blue Cross-Blue Shield operations makes it clear why it would be impossible to conduct a successful prepayment-for-service program for the low income group alone. The low income group has a high incidence of illness. The people in this group utilize more medical care than do those fortunate people who have more adequate incomes. Therefore, the prepayments necessary to support a plan operated solely for the medically indigent and low income people would be so substantial that few of these persons individually might be able or willing to subscribe to the plan on a voluntary basis.

Blue Shield is able to offer its coverage at an attractive and acceptable rate because it has so far succeeded in enrolling a typical cross-section of the entire community. The Blue Shield subscription rate can therefore be based upon the experience of the entire community.

Generally speaking, Blue Cross-Blue Shield is the prepayment program that is most attractive to people in the low income groups. These, of course, are the very people whom the Plans were primarily designed to serve. But the Plans could not continue to serve the low income, high cost groups unless they had their share of the higher income, low cost groups. The secret of Blue Cross-Blue Shield success is based on the law of averages, which in turn means a cross-section of the total population. Hence, Blue Cross-Blue Shield is for everybody.

Virginia's Plans Include Every "Kind"—If Not Everybody

The Blue Cross-Blue Shield Plans here in Virginia have been remarkably successful in enrolling, if not everybody in the State, at least a proportionate and a sizeable sampling of all categories and classifications of its population. There is, nonetheless, an unfortunate—though perhaps understandable—tendency on the part of some physicians to misinterpret a few experiences with member-patients as reason to believe Blue Cross-Blue Shield's membership is overly weighted with persons who are well-to-do and have no real need for the full-service benefits which characterize the "Blues". Such, however, is far from fact.

Included in the aggregate membership of the Blue Cross-Blue Shield Plans serving Virginia are 32,400 persons who are over sixty-five, and of these 21,600 are single females, many of whom undoubtedly are widows attempting to live on fixed incomes which they find progressively inadequate as inflation continues. About 65,000 members derive their living from farming; an equal number are otherwise self-employed or gain their livelihood from small merchandizing or servicing enterprises carried on by fewer than five persons; and a somewhat greater number are employed where the personnel numbers between five and ten persons.

Some of the persons in these categorial groupings, of course, are financially comfortable—a number of physicians, lawyers, and other professional people are classified as self-employed. Nonetheless, 200,000 is a low estimate of the number of Virginians who are maintaining Blue Cross-Blue Shield memberships even though they have difficulty making ends meet. Especially when illness increases their expenses and, as it does all too frequently, reduces

or eliminates their incomes, these persons find the full-service benefits of Blue Cross-Blue Shield to be invaluable.

According to the Bureau of Labor Statistics, during 1955 the *average* family-income here in Virginia was \$3,750. Many of the Plans' non-industrially employed members have total family incomes amounting to no more than this average; leastwise the majority of such members are not apt to have on hand the amount required to meet hospital and doctors' charges. Nor are their funds apt to be sufficient to take care of the "deductible" and the "share-the-expense" features of limited-dollar indemnification.

These folks truly need the protection of Blue Cross-Blue Shield's unique full-service arrangement. Were they without this protection, not only they but also physicians and hospitals would have additional money worries—financial hardship perhaps.

The Virginia Blue Cross-Blue Shield Plans in partnership with the medical profession and the hospitals are pledged to serve the people of the State—all the people. The goal is to make it possible for all Virginians to receive and to pay for the finest medical care obtainable. The Plans have done a good job so far, but they need the continuing support of every physician in the State if they are to reach their maximum effectiveness—if the objective of the partnership is to be attained.

Their awareness of their responsibilities in providing a high level of medical care for the entire community, as well as their recognition of the fundamental economic necessity that they themselves receive adequate compensation, should prompt Virginia physicians to continue to promote the success of the full-service Plans and to encourage their further development.

JOSEPH E. BARRETT, M.D.

*Commissioner, Department Mental Hygiene
and Hospitals*

The Role of the Psychologist in the Mental Hospital

On television, when Dr. Steiner, in the Medic, introduces himself as a doctor, everyone knows what he means. When I introduce myself as a Clinical Psychologist in a Mental Hospital, hardly anyone knows what I mean. What, then, is a Clinical Psychologist's function in a Mental Hospital?

The field of activity relegated entirely to the Clinical Psychologist is psychological testing, and, in a mental hospital, this is specifically intelligence and personality testing. As a direct result of the testing, the psychologist is called upon to offer a diagnosis and an evaluation of the individual patient as he sees him. Because of his training and orientation in personality theory, the Clinical Psychologist is also called upon to carry on psychotherapy. It is inevitable that, when a fund of information accumulates as a direct result of testing and therapy, some questions, hither-to unanswered, begin to show possibilities of solution, and the psychologist will then engage in some research project. The last activity of the psychologist, but by no means the least important, is making known his conclusions and theories relative to prevention, diagnosis and treatment of mental illness to the public at large, or in other words, to educate.

Intelligence testing is not the equivalent of psychometrics. It is true that after testing a measure or score is given indicating the relative position of this individual, intellectually, with regards to the population at large. However, the score needs almost in each case to be evaluated in relation to the life history of the individual tested. There are known to all of you individuals who are far below average intelligence and yet whose work habits and social adjustments are such that they suffer hardly at all in the competitive, economic struggle with their average or above average neighbors. You also know others who, though perhaps above average in intelligence, repeatedly lose out to their neighbors, less gifted intellectually. One cannot always estimate

intelligence with some degree of practical accuracy.

Before elaborating on the device used to obtain an intellectual level, we should ask ourselves, "What is intelligence?". An analogy has been made by Wechsler between intelligence and electricity. We know what electricity is by what it does; it can be measured by its thermal, chemical and magnetic properties. Similarly, intelligence can be measured by what it does, by the ability of the individual to perform at tasks which he would be expected to meet in ordinary life situations. Wechsler, therefore, devised an instrument that tapped broad areas of human abilities and activities and by a statistical device was able to arrive at a scoring method which would place any individual somewhere on an intellectual level relative to his chronological peers. The more intelligent an individual is the more he will be able to learn new material, remember isolated and disjointed facts and then so combine them and utilize them as to make deductions and conclusions based on such information; the less intelligent the individual is the greater will be the deficits in these abilities.

There is, in the professions directly allied to psychology, a great deal of confusion and misunderstanding relative to the term I.Q. Originally, it represented an intelligent quotient, or the actual percentage obtained by dividing mental age by chronological age. In that system, for reasons inherent in the test itself, an individual of average intelligence, let us say in his late 40s, would have a mental age of 15. This absurdity led to our present test for adults, which places them relative to their own chronological peers.

What do we mean by Average Intelligence, or Mental Defective, or Very Superior? These categories were strictly and statistically defined so that 50 per cent of the population fall into the classification of Average Intelligence and the I.Q. range is from 90 to 109. In Wechsler's tests the concept of mental age is eliminated. In the Mental Defective category 2.2 per cent of the population are included and score I.Q.'s of 69 and below. Those who score 130 and above are classified as Very Superior and make up 2.2 per cent of the population. Knowing

Prepared by ARTHUR CENTOR, *Department of Psychology, Southwestern State Hospital, Marion, Virginia.*

Read before the Smyth County Medical Association, April 11, 1956.

an individual's I.Q. on these tests will usually indicate how this individual is expected to perform vocationally and educationally, but his capacities and special abilities or deficits can only be evaluated by the psychologist. Since this test is administered individually by the psychologist, deviations in any or several areas stand out and, at the same time, the examiner is able to observe the outward manifestations of drive, attitude, anxiety, depression, or bizarre behavior. Although this instrument is not primarily an indicator of personality in its wider implication, it certainly is tremendously useful for getting at an individual's reactions to concrete problems. The important point for you to realize is that an individual's I.Q. is meaningless unless you also know the instrument by which it was obtained. An I.Q. score derived from a reading test, or an adult's I.Q. score derived from an intelligence test used primarily for children, or an I.Q. derived from a group administered pencil and paper test, is called I.Q., but all of these are useful in limited ways and certainly are not equal in meaning.

It is quite clear that to understand individuals necessitates a picture of the dynamic person. By this is meant, how this individual reacts intellectually and emotionally and deals in terms of processes and development, progression and regression. The personality of an individual, therefore, is the sum total, and not arithmetical total, of his abilities to introspect, to be creative, to react emotionally, sometimes with control and sometimes without, to be sensitive to the feelings of others, to tolerate anxiety, to have a purposeful fantasy life, to perceive ideas and conditions as they really are, to be idealistic and practical, to have a broad range of interests, to have a flexible outlook and to have a satisfactory sexual image of himself. How can one go about getting such a dynamic picture of an individual without spending an unreasonable amount of time with him? The easiest solution would seem to be through a questionnaire type of examination, in which the individual would be asked some direct and some indirect questions, the answers to which would give the examiner all of the necessary information to see this individual as a total organism, psychologically. However, the simplest device is quite often not the best. The inadequacies of such a device become readily apparent when one realizes that each individual sees himself not always as he really is, resulting in overt and covert lying. There is, however, a technique, or series of techniques, at the psychologist's disposal for tapping these areas which altogether make up the personality

of the individual. The most adequate technique is the Ink-Blot, or the Rorschach test, which consists of ten plates of ink-blot, five of which are in black ink and five of which contain colored inks too. When an individual is asked what it looks like to him, the variety and range of responses to these ink-blot are quite wide indeed. However, by his responses, the individual reveals unwittingly his personality make-up without being aware that he is doing so and without the ability to manipulate his responses to throw the examiner off the right track.

Another excellent technique is the T A T, or Thematic Apperception Test, in which the individual makes up a story, as he would for radio, a novel or the movies, having a given picture as the kernel or the stimulus, and with the given instruction to tell especially how the characters feel. By analyzing the themes of the individual's stories, the affect, the optimism, the creativity and all of the other personality factors, the psychologist is able, in most instances, to arrive at a satisfactory personality portrayal of this individual. These two techniques fall into the broader category of Projective Techniques, indicating simply that the test forces the individual to project his personality into the test and enables the psychologist to reconstruct the dynamic personality from the segmented projections given on these instruments.

From the test battery, the psychologist will endeavor to identify such factors in the individual as "normality," psychoneurosis, schizophrenia, affective disorders, personality disorders and brain damage, with all of the possible permutations and combinations. The positive features of the individual are noted and evaluated as well as the negative.

The individual's intellectual level, abilities and capacities, or deficits, and the dynamic picture of his personality are used in diagnosis and evaluation in order to plan treatment and disposition, and arrive at a prognosis. This work of evaluation and diagnosis is not done by the psychologist alone. Here he becomes a very active member of the psychiatric team made up of the physician, psychiatrist, social worker and the psychologist. In staff conferences, made up of the psychiatric team, the individual is evaluated from all and by all points of view and orientations and a diagnosis and evaluation is reached, based on the sum total of the various contributions made by each member of the team.

After psychological testing, and diagnosis and evaluation, there may be the indication for therapy. Since the orientation of the psychologist is, regard-

less of school, based on personality development, the therapeutic means to enable an individual to get out of the morass of psychological difficulty is psychotherapeutic, or in its simplest terms, helping the individual arrive at an understanding of the derivation of irrational and unhealthy ideas and concepts and by becoming aware of them become the master of them.

The two branches of psychotherapy are individual and group therapy, and, in all cases, the Clinical Psychologist's orientation will determine his approach. Essentially, the techniques are based on support, reassurance, understanding, analysis of resistance to change and a pointing up of patterns of unhealthy attitudes and ideation. With individuals, therapy can be superficial or quite intensive and likewise groups of patients, usually eight to ten, when brought together, are helped in dealing with their anxieties, fears and irrationalities.

Hypnosis, as carried out by a psychologist, has been found to be, in certain instances, a valuable tool in arriving at a diagnosis and in speeding up some psychotherapies. The role of hypnosis in temporarily alleviating distressing hysterical symptoms is well known.

Although the basic outline of personality theory is available to the Clinical Psychologist, there is, unfortunately, a world of research to be done to fill in all too many gaps and vacuums. The Clinical Psychologist in a mental hospital will, after having accumulated enough insight into a psychological problem, design a research project to test a hypothesis which will finally be proven or disproved, or,

as happens too often, indicate new areas of necessary research. The type of research conducted by the psychologist may be pure or practical, but, like research in any field of knowledge, the results are always important, albeit not always immediately so.

Individuals who need testing and evaluation before admission are also seen by the psychologist and, likewise, patients who are discharged from the hospital may be seen on an out-patient basis to help them in their struggle to maintain at least a social recovery.

Finally, the Clinical Psychologist is prepared to present his acquired knowledge to the public, which today is ever ready to listen to and evaluate what the psychologist has to say about the emotional, social, vocational, educational and marital problems that arise in all communities. Not only does he work individually, but he works in conjunction with the other professions whose self imposed task is to serve others.

The Clinical Psychologist in a mental hospital, then, is that individual who conducts intelligence and personality testing and evaluation for the purpose of arriving at a diagnosis, and through this a prognosis, and who institutes and carries through, wherever it is advisable, psychotherapy with an individual or group. He is constantly using his own research to gain and disseminate further knowledge in the field of mental health and care.

Finally, the psychologist's ultimate allegiance is to society and, therefore, is always available in his own community to educate others from his fund of psychological knowledge.

\$65 Million in Construction

Seventeen medical schools—16 in the United States and one in Canada—have reported completion of construction projects costing 65 million dollars during the 1955-56 school year.

During the same period, 17 schools in the United States and two in Canada have undertaken new construction projects costing approximately 45 million dollars.

Endemic Typhus

In 1926 Dr. Kenneth Maxcy investigated cases of endemic typhus in Southeastern United States. Later, in 1929, on epidemiological grounds, he postulated that there is a reservoir of the disease other than in man and suggested that rats and mice might serve as such a reservoir with accidental transmission to man through the bite of some bloodsucking arthropod-fleas, mites, or possibly ticks. In 1931, Dyer and his associates established the fact that the tropical rat flea, *Xenopsylla cheopis*, is the principal vector of the disease from rat to rat and from rat to man.

Murine typhus, or flea-borne typhus (other names for endemic typhus) is a rather mild disease in persons under fifty years of age. The incubation period is from six to fourteen days, most often twelve days. The symptoms are milder and of shorter duration than those of epidemic, or louseborne, typhus. The onset is fairly rapid with headache, chills, nausea, and rise of temperature. A rash appears on the fifth day, though it may develop as early as the second and as late as the ninth day. It is first noted on the trunk and later spreads to the extremities and becomes general in the course of 24 hours. The face, palms of the hands, and soles of the feet are not involved. It reaches its height on the fourth to the sixth day and then subsides. At first it is erythematous in character and as it increases the color changes from dull red to a purplish hue and there are some petechial spots. The temperature shows wider fluctuations than in the epidemic form and ends in rapid lysis after approximately two weeks. The patient is generally greatly weakened and cannot get out of bed for another week and it is a month or two before he can get back to work.

At the end of the first week the blood serum shows a rising titer of agglutinins for *Proteus* OX19. This is also true for Rocky Mountain spotted fever. It should be remembered that the rash of Rocky Mountain spotted fever usually appears on the exposed extremities first and later involves the body. Also, it often appears on the face, the palms, and the soles. A history of activities in areas where rats are numerous may be obtained from the patient with murine typhus.

MACK I. SHANHOLTZ, M.D.
State Health Department of Virginia

Rats concentrate on premises where food, water, and harborage are available. In towns and cities these conditions are found to be most favorable in the older business sections. Consequently, the risk of infection is greatest among food handlers, employees in grocery shops, butcher shops, markets, seed stores, etc., and more frequently in adult males. The incidence of the disease is greatest during the summer months, the same season in which we find Rocky Mountain spotted fever. In regard to the latter disease, we should recall that the rickettsiae are carried by ticks and the ticks hibernate and do not become active until the spring weather advances.

In transmitting the disease, a flea that has become infected by feeding on an infected rat bites a man. In biting the person, the flea may deposit its feces in the area. The person, in scratching the bite, carries into his skin the rickettsiae deposited in the feces of the infected flea. The infection is not transmitted to the offspring of infected fleas, but the rickettsiae of Rocky Mountain spotted fever are transmitted from generation to generation of ticks. Murine typhus is not contagious from man to man. Certain antibiotics are effective in the treatment of the disease.

Preventive measures are to dust the rat runs, burrows, and harborages with DDT powder to reduce the flea population of the rat colonies and, after this is done, to reduce the rat population by poisoning, trapping, cleaning up harborages, and rat-proofing buildings.

MONTHLY REPORT OF BUREAU OF COMMUNICABLE
DISEASE CONTROL

	Oct. 1956	Oct. 1955	Jan.- Oct. 1956	Jan.- Oct. 1955
Brucellosis	6	6	30	29
Diphtheria	2	11	26	29
Hepatitis (infectious)	39	57	419	977
Measles	62	51	23585	3795
Meningococcal Infections	12	7	75	79
Meningitis (Other)	15	--	134	--
Poliomyelitis	28	49	202	314
Rabies in Animals	16	36	262	331
Rocky Mt. Spotted Fever	4	2	51	46
Streptococcal Infections	290	372	4966	5930
Tularemia	1	1	19	12
Typhoid Fever	10	11	55	43

The Medical Society of Virginia . . .

Council Minutes

The meeting of the Council of The Medical Society of Virginia was called to order by Dr. James P. King, President, at 1:00 p.m. on Sunday, October 14, 1956, at the Hotel Roanoke, Roanoke. A quorum was present. Attending were Dr. Carlington Williams, Dr. J. D. Hagood, Dr. Mack I. Shanholtz, Dr. John P. Lynch, Dr. John T. T. Hundley, Dr. Harry J. Warthen, Jr., Dr. A. A. Creecy, Dr. Walter P. Adams, Dr. Benjamin W. Rawles, Jr., Dr. Wilkins J. Ozlin, Dr. Louis P. Bailey, Dr. Frank A. Farmer, Dr. Harold W. Miller, Dr. McLemore Birdsong, Dr. James P. Williams and Dr. Harry C. Bates, Jr. Also present were Dr. K. D. Graves, Secretary, State Board of Medical Examiners and Dr. Walter A. Porter, Chairman of the Finance Committee.

Dr. Porter presented the report of the Finance Committee, and the proposed budget for 1956-57 was considered in detail. (The budget, as adopted, is included in the minutes of the second session of the House of Delegates.)

Late developments with reference to the Medical Care Program for Service Dependents (P.L. 569) were discussed and it was brought out that the Department of the Army intends to open negotiations on a contract and fee schedule sometime around the first of November. The matter of developing an acceptable fee schedule was considered, and it was the consensus that the Schedule of Relative Values, developed by the California Medical Association, would provide an excellent base. A motion to accept the schedule as basis for a fee schedule was adopted.

In an effort to find the proper unit value needed to complete the surgical fee schedule, it was moved that \$125.00 be accepted as the fee for an appendectomy. An amendment was proposed which would increase this fee to \$150.00. There was some feeling that the matter needed more careful study before attempting to recommend a unit value figure. A substitute motion was then introduced which would have a five man study committee, appointed from Council, consider the problem and report to the Reference Committee on Monday, October 15, at 10:00 a.m. The motion was carried. Appointed to the Committee were Dr. Bates, Chairman, Dr. Rawles, Dr. Miller, Dr. Warthen and Dr. Adams.

It was then recommended that actual negotiations

with the Department of the Army be carried on by the Executive Committee of Council.

A proposed amendment to Article V, Section 2 of the By-Laws was explained by Dr. Adams and it was recommended that the amendment be introduced in the House.

Dr. Rawles discussed the need of a better relationship between Blue Cross-Blue Shield and physicians. It was his thought that four of the eight physicians on the Blue Shield Board each year might well be nominated by The Medical Society of Virginia or the various specialty groups. It was then moved that Council recommend a closer relationship between medical service plans and physicians in the State, and that, if possible, The Medical Society of Virginia arrange to nominate a certain percentage of the physicians appointed to the governing boards. The motion was amended to recommend that The Medical Society of Virginia, or component societies concerned, have the privilege of nominating physician members to Blue Cross-Blue Shield Boards. The motion was carried.

A letter from Dr. William H. Whitmore, pertaining to contract negotiations under P.L. 569, was read and referred to the Executive Committee for consideration.

Council was then read a letter from the President of the Virginia Society of Pathology voicing opposition to the inclusion of payment for pathologic examinations under Blue Cross. It was believed that such examinations more properly belong under Blue Shield contracts.

It was the consensus that any action by Council should be deferred until after the VALC study on Hospital-Physician Relations has been completed. The Executive Secretary was directed to write the President of the Virginia Society of Pathology to this effect. It was recommended that the Virginia Radiological Society and the Virginia Society of Anesthesiology also be written.

Dr. Shanholtz commented on a letter from Dr. C. W. Whitmore, which pointed out that under Virginia's Child Labor Law, the physicians certificate of physical fitness may be executed by a private physician only when a Public Health Officer is not available. Dr. Whitmore believed that individuals who ordinarily consult private physicians for medical problems should be privileged to have the examinations done and the certificates executed

by family physicians.

Dr. Shanholtz agreed that the law might well be revised. It was then moved that the Legislative Committee seek the desired revision of the law. An amendment was adopted which would first have Dr. Shanholtz study the matter and determine exactly what action is necessary to accomplish the desired results. The motion passed.

The advisability of continuing the Committee on Postgraduate Medical Education was discussed and it was decided to refer the matter to the Judicial Committee. This action was necessary since abolishment would mean amending the Constitution and By-Laws. It was also thought that another year would shed more light on the question.

Council was advised that approximately 150 copies of "History of Medicine in Virginia in the 17th Century" (Dr. Wyndham B. Blanton) remain in the hands of the printer. The Society has been purchasing the copies for \$2.75 each. It was explained that the printer will sell all remaining volumes at a special rate of \$2 per copy, if the Society will purchase the entire lot. Since the Society realizes an income from the sale of the books, it was thought advisable to take advantage of this offer. The budget was, therefore amended by increasing the miscellaneous fund to \$800.

Dr. Lynch explained his proposed public relations project which would have the Society work with book stores over the State in arranging a special shelf of approved health books for the public. After considerable discussion, it was moved that the question be referred to the Public Relations Committee which would in turn determine whether or not the American Medical Association issues lists of approved health books. A substitute motion was then introduced which would refer the project to the Public Relations Committee for such action as the Committee believes advisable. The motion was adopted.

A report from the Special Seal Committee was presented by Dr. Warthen, who stated that Society minutes of 1873 described the original. Copies of the proposed seal were distributed. After some consideration, it was Council's decision that it would be best to leave the seal in its present form.

A question was raised concerning what constituted proper committee expenses, and attention was called to Article IX of the By-Laws. It was recommended that all committee chairmen be advised of this provision at the beginning of each year.

Dr. Rawles discussed the annual President's

Award for the physician who has done most for the physically handicapped during the year. He described the work being done at Woodrow Wilson Rehabilitation Center by Dr. Treacy O'Hanlan and moved that the Society recognize Dr. O'Hanlan's efforts and urge his nomination for the National Physician of the Year Award. The motion was adopted.

Next considered was a request from the Association of American Physicians and Surgeons that the Society sponsor the 1957 essay contest in Virginia. The alternate titles are "The Advantages of Private Medical Care" or "The Advantage of our American Free Enterprise System". It was moved that the Society endorse the contest but that no funds be used in its promotion.

Milk sanitation and control was covered by Dr. Shanholtz who acquainted Council with some of the problems confronting the Health Department. Dr. Shanholtz then offered the following resolution:

RESOLVED, that the State Medical Society recognizes the fact that the sanitation of milk is a Public Health responsibility, and, therefore, recommends the adoption of a uniform ordinance by each local Public Health jurisdiction within the Commonwealth of Virginia at least equivalent to the standard ordinance recommended by the State Health Department. If a Public Health jurisdiction fails to adopt such an ordinance, the State Health Department's recommended milk code shall apply.

It was recommended that the resolution be accepted and referred to the Legislative Committee.

Dr. Adams informed Council of the possibility that Portsmouth physicians might soon wish to charter their own component society. Reasons given involved interest, transportation, etc.

There being no further business, the meeting was adjourned.

At a special meeting of Council called on Monday morning, October 15, at the Hotel Roanoke, it was recommended that the 1958 Annual Meeting be held in Richmond and that the Executive Committee be authorized to select the date and headquarters.

Dr. Farmer explained that the Virginia Academy of General Practice wished to be relieved of the responsibility of nominating physicians for the title of General Practitioner of the Year in Virginia. He stated that the Academy feels that the responsibility rightly belongs to The Medical Society of Virginia. It was the consensus that this matter should be considered during the mid-winter meeting of Council.

House of Delegates

FIRST SESSION

The House of Delegates of The Medical Society of Virginia met in the Ballroom of the Hotel Roanoke on Sunday, October 14, and was called to order at 8:00 p.m. by Dr. James P. King, president.

Dr. King introduced Dr. John T. T. Hundley, Speaker of the House, who received a report from Dr. Ira L. Hancock, Chairman of the Credentials Committee. Dr. Hancock reported a quorum present.

Minutes of the 1955 Meeting of the House of Delegates were approved as published in the December 1955 issue of the Virginia Medical Monthly.

Dr. Hundley then introduced Dr. R. B. Wood, President, Tennessee State Medical Association, who brought greetings from his membership.

Delegates of the two state chapters of the national Student AMA were introduced and their reports received. Representing the University of Virginia Chapter were Mr. Austin Litvak and Mr. James Hutchinson. The Medical College of Virginia was represented by Mr. R. B. Young and Mr. Alfred Cramer.

Mrs. Mervin W. Glover, President of the Woman's Auxiliary to The Medical Society of Virginia, was introduced and presented her annual report.

Dr. Hundley then recognized the following visiting delegates to the Annual Meeting: Mrs. Sarah Smith Luster, The Virginia State Nurses Association; Dr. William T. McAfee, Virginia State Dental Association, and Mr. Charles E. Green, Jr., Virginia Pharmaceutical Association.

Rules of procedure for the House of Delegates, as recommended by Council, were adopted.

The Speaker then recognized Dr. Walter A. Porter, Chairman of the Finance Committee, who presented the proposed budget for fiscal 1956-57 as recommended by the Council. It was then moved that the report be accepted and the budget adopted.

Dr. Martin stated that, in his opinion, the proposed contribution to the American Medical Education Foundation was much too low. He then offered a substitute motion which would refer that one item to the Finance Committee for reconsideration. Another substitute motion was introduced which would appropriate \$4,000 from the general fund for AMEF. There was no second. Dr. Martin's motion was then adopted. The remainder of the budget was approved.

Dr. Hundley then reported on the afternoon meeting of the Council and announced a meeting of the special committee to consider a fee schedule for the medical care program for service dependents.

The House then considered the recommendation that Council seek a closer relationship between medical service plans in the State and Virginia physicians and that, if possible, The Medical Society of Virginia work out plans whereby a certain number of physicians who are appointed to Blue Cross-Blue Shield Boards can be nominated by the Society or the component societies concerned. The recommendation was approved.

After some discussion, the House approved the Council recommendation that Dr. Shanholtz look into the Child Labor Law as it pertains to the physician's certificate of physical fitness, and determine what revisions are necessary to permit the certificates to be issued by private physicians. The matter would then be referred to the Legislative Committee.

Dr. Hundley informed the House that there was some question as to whether or not the Committee on Postgraduate Medical Education should be abolished. There was no objection to Council's recommendation that the question be first referred to the Judicial Committee.

The House then approved the recommendation that the remaining 150 volumes of "History of Medicine in Virginia in the 17th Century" be purchased from the printer at a cost not to exceed \$300.

Dr. Rawles reported on the President's Award to the physician who has contributed most to the rehabilitation of the physically handicapped and requested the House to recognize the work of Dr. Treacy O'Hanlan in this regard. The House was also requested to support Dr. O'Hanlan's nomination for recipient of the award. It was moved and seconded that the recommendation be approved. The motion carried.

Considered next was the Council recommendation that the Society endorse the essay contest sponsored by the Association of American Physicians and Surgeons, with the understanding that no funds be spent in promoting the contest. The recommendation was approved.

Dr. Hundley read the following resolution presented earlier to Council by Dr. Shanholtz:

RESOLVED, that the State Medical Society recognizes the fact that the sanitation of milk is a Public Health responsibility, and, therefore, recommends the adoption of a uniform ordinance by each local Public Health jurisdiction within the Commonwealth of Virginia at least equivalent to the standard ordinance recommended by the State Health Department. If a Public Health jurisdiction fails to adopt such an ordinance, the State Health Department's recommended milk code shall apply.

The resolution was adopted.

Delegates to special conventions were then recognized. Dr. Harold W. Miller and Dr. Harry J. Warthen, Jr., represented the Society at the annual meeting of the Virginia Pharmaceutical Association and Dr. James L. Hamner was a delegate to the annual meeting of the Virginia Academy of General Practice.

The following committee reports, published in the October 1956 issue of the Virginia Medical Monthly, were accepted: Executive Secretary Treasurer; Delegates to AMA (a motion by Dr. Harrell which would have a committee appointed to look into items 14 was lost); Editorial Board; Scientific Exhibits; Legislative; Medical Service (a supplemental report by Dr. Buxton was referred to the Reference Committee); Membership; Ethics; Judicial; Public Relations; Mediation; Fiscal Policy; Liaison with Department of Public Welfare; Maternal Health; Walter Reed Commission; Child Health; Cancer; Tuberculosis; Conservation of Hearing; Polio; Mental Hygiene; American Medical Education Foundation; National Legislation; Federal Medical Services; Liaison to Confer with United Mine Workers Welfare Fund; Physician Liability Insurance; National Emergency Medical Service; Advisory to Woman's Auxiliary; To Assist the American Diabetes Association; Venereal Disease Control (Dr. Love presented a supplemental report which was adopted); To Study the Treatment of Alcoholism; State Board of Nurse Examiners; Cerebral Palsy.

The following reports were also accepted: Rehabilitation (supplemental report by Dr. Hoover accepted and referred to Reference Committee); Advisory Heart; Program.

All reports not previously published in the Virginia Medical Monthly may be found in the special report section of this issue.

The House was then advised of the recommendation by Council that a modern functional headquarters building for the Society be erected. Dr. Martin moved that consideration be delayed for one year and a special committee appointed to study the situation and prepare a definite plan for presentation to the House in 1957. The motion was seconded. There followed considerable discussion during which Dr. Rawles reported on the study made by his special Headquarters Improvement Committee and Dr. Horsley pointed out the findings and recommendations of his Committee on Fiscal Policy (see page 454 of the October 1956 issue of the Virginia Medical Monthly). Dr. Martin's motion was

lost 88-36.

A motion to approve the recommendation of Council was amended to stipulate that the cost of land, building and equipment must not exceed \$120,000. The motion carried.

Dr. Hundley called for new business and resolutions introduced by the following delegates were referred to the Reference Committee.*

Dr. Adams—Resolution to amend By-Laws by specifying that only members of The Medical Society of Virginia could be counted by a component society when fixing the number of delegates to the annual meeting. The amendment would also abolish the alternative of electing a delegate for each county and city in a Society.

Dr. Snowden C. Hall, Jr.—Resolution from Danville-Pittsylvania Academy of Medicine which would have a committee study the advisability of changing state maternity hospital law in such way as to permit the procedure of house delivery under appropriate regulations to meet the needs of rural obstetrics.

Dr. John R. Mapp—Resolution which would have president of Society call a meeting of chairmen of hospital medical staffs for a thorough review of problems connected with nursing education in Virginia.

Dr. Kinloch Nelson introduced a motion which would have the Society meet at locations other than metropolitan centers of the State. The motion was lost.

Members of the Nominating Committee were announced by the Speaker. They were Dr. Russell Buxton, First District; Dr. William Whitmore, Second District; Dr. W. Linwood Ball, Third District; Dr. James L. Hamner, Fourth District; Dr. W. N. Thompson, Fifth District; Dr. Harry B. Stone, Jr., Sixth District; Dr. Guy Fisher, Seventh District; Dr. O. K. Burnette, Eighth District; Dr. J. C. Moore, Ninth District; Dr. J. R. B. Hutchinson, Tenth District.

A meeting of the Reference Committee was announced for 10:00 a.m. the following morning, October 15, in Parlor "D" of the Hotel Roanoke.

There being no further business, the meeting was declared adjourned until Tuesday, October 16, 1956, at 4:00 p.m.

SECOND SESSION

The Second Session of the House of Delegates of The Medical Society of Virginia was called to order by Dr. John T. T. Hundley, Speaker of the House, at 4:00 p.m. Tuesday, October 16, 1956, in the Pine Room of the Hotel Roanoke.

*Text of resolutions included in minutes of Second Session, House of Delegates.

Dr. Hancock, Chairman of the Credentials Committee, reported a quorum present.

The Speaker then introduced Mr. John Hedback, Director of the American Medical Education Foundation, who thanked the Society for its support.

The report of the Reference Committee was then considered. The Committee recommended that the following resolution, introduced by Dr. Buxton, be adopted. A motion for adoption carried.

WHEREAS, the employment of the physically handicapped is of major importance to our economy and of prime interest to this Society, and

WHEREAS, an industrial injury to one already physically handicapped often produces disability far in excess of that which may be compensated for under the Virginia Workmen's Compensation Act which apportioned such injury and allows compensation only for the disability which would have resulted had the prior disability not existed, and

WHEREAS, it would be inequitable to foist upon the employer the entire responsibility for the combined effects of the two disabilities, and

WHEREAS, forty-three states, three territories and the District of Columbia have established a special fund out of which the difference between the compensable disability and combined disability may be paid, thus reaching more substantial justice;

NOW, THEREFORE, BE IT RESOLVED by The Medical Society of Virginia in convention assembled that this Society go on record as favoring the establishment by the General Assembly of Virginia of a special fund to be known as the Second Injury Fund out of which the difference between the compensable disability for a second injury and the combined disability for the successive injuries may be paid, the same to be funded and administered in such manner as the General Assembly may deem proper, and

BE IT FURTHER RESOLVED that a copy of this resolution be forwarded to the Clerk of the House of Delegates, the Clerk of the Senate, and to the Governor of Virginia, Chairman of the Industrial Commission of Virginia, Virginia State Chamber of Commerce Virginia Manufacturers Association. BE IT FURTHER RESOLVED that the Legislative Committee of The Medical Society of Virginia be instructed to offer any and all help possible to the passage of a Second Injury Law.

The Speaker stated that no action was taken on an almost similar resolution introduced by Dr. Hoover as a supplemental report of the Rehabilitation Committee. The Reference Committee believed that consideration of the resolution would be merely a duplication of effort.

The following resolution, introduced by Dr. Hall, was then adopted on a recommendation of the Committee:

WHEREAS, the procedure of office delivery with home

after-care has been developed by a number of physicians in this State, in North Carolina, and in Kentucky, as an answer to the pressing problem of obstetrics in low-income rural areas where hospital facilities are not readily available, and

WHEREAS, the Maternity Hospital Law of the State of Virginia now reads: Part I, Section I, (c) "Maternity Hospital" means any place or establishment operated or maintained by any person for the care or treatment of women during pregnancy, or for delivery, or for care of treatment within ten days after delivery, whether the place or establishment so maintained be a general hospital, a hospital devoted exclusively to maternity cases, a maternity home or lying-in asylum, or a private home, and

WHEREAS, as the Virginia law now stands, office deliveries are not permitted unless the office is licensed as a hospital, and

WHEREAS, to be licensed as a hospital a number of expensive requirements must be met which are designed for in-patient care—bed and board facilities which serve no necessary purpose in the office delivery procedure, and

WHEREAS, licensure as a hospital by Virginia State Law does not require that facilities for blood transfusion and facilities and personnel for emergency procedures such as Caesarian section need be any more available in a small rural hospital than in an office and therefore adds nothing to actual requirements for improved medical care, but only provides for a more expensive setting for the same medical services which may be rendered in an office delivery service, the right to charge hospital fees, and the necessity of paying hospital insurance, and

WHEREAS, in a low-income community these expensive extras may well be the deciding factors against any medical facility to replace home obstetrics.

THEREFORE, BE IT RESOLVED that The Medical Society of Virginia be requested to refer to a committee for study the question of requesting the next Legislative Assembly of the State of Virginia to revise or change the State Maternity Hospital law in such a way as to permit the procedure of office delivery under appropriate regulations to meet the needs of rural obstetrics.

Also adopted was the following resolution introduced by Dr. Mapp:

WHEREAS, it appears that the people and hospitals of Virginia are becoming progressively deprived of the services of registered nurses, and

WHEREAS, we believe hospitals cannot operate without a reasonable number of 3-year hospital trained and properly indoctrinated registered nurses, and

WHEREAS, it appears that this expanding need is not likely to be met under the present nursing educational program of upgraded requirements for nursing candidates, students and faculties—however zealous and well meaning are the nursing educators who recommend these changes, and

WHEREAS, the current programs are tending to terminate registered nurse recruiting and training in

small hospitals of this State and will in a short period of time deprive these same institutions and areas of registered nurses,

BE IT RESOLVED that it would seem desirable that the 1957 President of The Medical Society of Virginia call together the chairmen of the medical staffs of the hospitals of Virginia who are interested in training registered nurses, for a thorough review of the problem of nursing education in hospitals of this state, giving primary attention to the needs of the people throughout the State and to the essential need of all its hospitals for registered nurses, this committee on nursing education to summarize its findings and make such recommendations as may seem indicated to The Medical Society of Virginia by means of its Virginia Medical Monthly at the earliest reasonable date.

Dr. Hundley reported that the Committee recommended a special appropriation for the American Medical Education Foundation of \$1,000. This would be a special contribution for 1956 and would be in addition to the regular contribution of \$2,000 already in the budget. The recommendation was approved.

The budget, as approved, is listed below:

BUDGET 1956-57

Executive Office

Salaries	\$24,000.00
Telephone & Telegrams	1,500.00
Postage	900.00
Stationery & Supplies	1,200.00
Office Equipment	800.00
Building Maintenance	2,100.00
Building Repair	500.00
Convention Expense	1,000.00
Council & Committee Expenses	2,500.00
Delegates to AMA	1,500.00
Executive Assistant	325.00
President's Expenses	1,000.00
Traveling Expenses	2,000.00
Virginia Medical Monthly	26,000.00
Scientific Exhibits	2,500.00
Postgraduate Medical Education	1,000.00
Legal Expenses	1,500.00
Walter Reed Commission	300.00
Woman's Auxiliary	100.00
Membership Dues—Affiliated Agencies	150.00
Editor—Virginia Medical Monthly	600.00
Special Appropriations	
Virginia Council on Health and Medical Care	2,000.00
American Medical Education Foundation (Special for 1956)	1,000.00
American Medical Education Foundation	2,000.00
National Society on Medical Research	150.00
Student AMA	200.00
Exhibit for Jamestown Festival	1,500.00
Sub-Committee on Rural Health	500.00
Social Security Taxes	500.00
Miscellaneous	800.00

Public Relations

Conference Expenses	100.00
Radio & Press	600.00
Literature & Bulletins	500.00
Exhibits	100.00
Miscellaneous Projects	100.00
TOTAL	\$81,525.00

The following recommendations of the Committee on Child Health were approved as recommended by the Committee:

1. The present law requiring use of prophylactic silver nitrate in the eyes of newborns should be modified to permit the two medical schools in Virginia to conduct research with locally acting antibiotics.
2. The portion of the maternal hospital law referring to nursery nurses should be amended by deleting the word "mask".
3. Birth certificate forms should be amended in such a way as to permit the listing of congenital malformations, rather than merely a check mark as to their presence or absence.

Approved also was a resolution to lease the Walter Reed Birthplace to the Walter Reed Community Betterment League for a period of 10 years with the Society lending financial assistance in an amount not to exceed \$300 a year during the period of the lease. The Society would have the right of inspection at all times with the provision that the property be maintained in its present form as a shrine.

The House then considered the proposed amendment to the By-Laws with reference to the election of delegates to the annual meeting. Dr. Salley moved that there be division of the question in order to permit separate action on the two amendments. The first amendment (Article V, Section 2) would provide that the number of delegates be based upon component society members who are members of The Medical Society of Virginia. This amendment was adopted. It was then moved that the second amendment, which would abolish the alternative of electing one delegate from each county and city in a component society, not be approved. It was recommended that further study on the question be conducted during the year.

Article V, Section 2, of the By-Laws now reads as follows:

Each component society may elect annually to membership in the House of Delegates, one delegate and one alternate for each thirty-five (35) or major fraction thereof of its members who are members of The Medical Society of Virginia; or, in its discretion, a component society may elect one delegate and one alternate from each county and each city in its territorial area. In any event, each component so-

ciety is entitled to at least one delegate and one alternate in the House of Delegates. If the full number of delegates accredited to a component society are not present at the meeting of the State Society, those members present from such component society shall, from members of that Society present, elect or appoint a sufficient number of delegates to complete its quota. Delegates and alternates shall be active members of The Medical Society of Virginia.

Considered next was a recommendation of the Reference Committee that recommendations one and two of the Sub-Committees on the Chronically Ill and Medically Indigent, as reported by the Medical Service Committee, be rescinded. The recommendation was approved.

Dr. Bates then presented a resolution prepared by his Special Study Committee on Dependents Medical Care Fee Schedule and moved its adoption. A substitute motion which would have the matter referred to Council for such action as necessary was seconded but later withdrawn. A substitute motion by Dr. Salley to recommit the resolution for further study was seconded. After considerable discussion it was moved and passed that the debate be closed. Dr. Salley's motion was lost. Another substitute motion which would amend the resolution in such way as to limit the program to dependents of members of the Army, Navy, Air Force and Marines, received no second.

A vote was then taken on Dr. Bates' original motion and it was adopted. The resolution, as approved, follows:

This Committee, formed by request of Council October 14, and given 18 hours to formulate a fair and equitable fee schedule for the entire medical profession in the State of Virginia reports the results of its deliberation as follows:

WHEREAS, the Congress of the United States and the Department of Defense having forced us to act without adequate time and study on this problem so important to our profession, and

WHEREAS, in the time and deliberation available to us the Committee could not possibly formulate a fee schedule of its own of the scope necessary, and

WHEREAS, the California Medical Association has such a basis for a fee schedule consisting of 1,400 procedures listed as a Relative Value Schedule which can be almost universally applied to this problem when properly implemented by a selected point value, and

WHEREAS, it is understood by the Committee that the Department of Defense will negotiate annually with the agents of the physicians, and

WHEREAS, it is felt that this committee should arrive at a fee schedule acceptable to the majority of physicians of Virginia, it is also realized that the physicians in certain areas of the State may find such

a fee schedule not acceptable because of their higher living and operating expenses and because it would create a great disparity with fees for similar services in adjacent localities,

THE COMMITTEE THEREFORE RECOMMENDS the following:

1. That for the time being, the Relative Value Schedule as formulated by the California Medical Association be used as a basis for establishing relative values for procedures, except that the point value of an appendectomy be reduced to 30 and the point value of an obstetrical delivery including ante partum and post partum care be raised to 35, no other changes being made at this time in the Relative Value Schedule.
2. That the value of each point in the above mentioned Relative Value Schedule be set at "5" for determination of the fee to be charged by the physician, for all procedures,
3. That where the members of any single component society or group of component societies would be financially injured because of the disparity between this fee schedule and the fee schedule of an adjacent area, then the component societies so involved be permitted to withdraw from this fee schedule and negotiate a different one, provided an acceptable negotiating agent is available and willing, and providing further that such action be acceptable to the Department of Defense.

The Speaker called for new business and Dr. McCarty moved that the House give a rising vote of thanks to those physicians who had served on the Boards of Blue Cross-Blue Shield. The motion carried.

Dr. Guy R. Fisher, Chairman of the Nominating Committee, was recognized and submitted the following nominations:

President Elect: Harry C. Bates, Jr., M.D., Arlington

1st Vice-President: Reverdy H. Jones, Jr., M.D., Roanoke

2nd Vice-President: Ira L. Hancock, M.D., Creeds

3rd Vice-President: J. P. Sutherland, M.D., Harman

Speaker of the House

of Delegates: John T. T. Hundely, M.D., Lynchburg

Executive Secretary-

Treasurer: Robert I. Howard, Richmond

The nominations were adopted unanimously.

It was then announced that a Vice-Speaker must also be elected. Dr. Fletcher J. Wright, Jr., Petersburg, was elected to that office.

The following nominations for Councillors were received and approved:

- 2nd District: Walter P. Adams, M.D., Norfolk
 4th District: Fletcher J. Wright, Jr., M.D.,
 Petersburg
 6th District: Frank A. Farmer, M.D., Roanoke
 8th District: David W. Scott, Jr., M.D., Fredericksburg
 10th District: Jacob D. Zylman, M.D., Falls Church

Dr. Hundley then received the following nominations for the State Board of Medical Examiners:

- 7th District: Chester L. Riley, M.D., Winchester
 Harold W. Miller, M.D., Woodstock
 D. Edward Watkins, M.D., Waynesboro
 8th District: C. G. Finney, M.D., Culpeper
 James B. Twyman, M.D., Charlottesville
 C. V. Cimmino, M.D., Fredericksburg
 9th District: Lloyd L. Thompson, Jr., M.D., Richlands
 James L. Chitwood, M.D., Pulaski
 W. B. Barton, M.D., Stonega

Next in order were nominations for a delegate and alternate to the American Medical Association. It was announced that the term of Dr. Vincent W. Archer would expire December 31. Dr. Archer was reelected as delegate and Dr. Allen Barker as his alternate.

It was announced that the Virginia Academy of General Practice requested permission to place only one name in nomination for General Practitioner of the year in Virginia. Dr. Rufus Brittain nominated Dr. Ira L. Hancock, who was elected unanimously. Dr. Hancock received a standing ovation.

The Speaker announced that the 1957 meeting would be held in Washington at the Shoreham from October 27-30, and that the 1958 meeting had been recommended for Richmond. It was recommended that Council select the date and headquarters hotel.

Dr. Whitmore then introduced the following resolution which was adopted:

BE IT RESOLVED that the House of Delegates of The Medical Society of Virginia take recognition of the tremendous job which has been accomplished by our host, the Southwestern Virginia Medical Society, and its local Committee on Arrangements, in connection with the 109th Annual Meeting, and

BE IT FURTHER RESOLVED that this body express appreciation to the staff of the Hotel Roanoke for its cooperation in helping make this meeting an outstanding success.

There being no further business, the meeting was adjourned.

ROBERT I. HOWARD
Executive Secretary

Approved
 James P. King, M.D., President

Life Members—Fifty Year Club—1956

- Dr. Greenville Ramsey Berkeley, London Bridge
 Dr. William Hartley Craig, Richmond
 Dr. Merritt Wood Healy, Norfolk
 Dr. Drewry Hamilton Mason, Ridgeway
 Dr. Lewis C. McNeer, Bristol
 Dr. Ray Atkinson Moore, Farmville
 Dr. James Coleman Motley, Abingdon
 Dr. James Russell Parker, Providence Forge
 Dr. Orrin King Phlegar, Bluefield
 Dr. Daniel D. Talley, Jr., Richmond
 Dr. Bertram Everett Topham, Roanoke

Members Whose Deaths Have Been Reported Since 1956 Meeting

- Dr. Horace Allen Albertson, Roanoke, August 20, 1956
 Dr. Mary Barney Baughman, Richmond, March 30, 1956
 Dr. Lyle Steele Booker, Waynesboro, August 10, 1956
 Dr. David Alexander Christian, Appomattox, November 18, 1955
 Dr. Henry C. Corbett, Arlington, October 7, 1955
 Dr. Robert Hull Courtney, Richmond, May 23, 1956
 Dr. R. A. Davis, Newport News, April 29, 1956
 Dr. Roger Harold DuBose, Roanoke, April 2, 1956
 Dr. Joseph Clinton Dunford, Portsmouth, March 22, 1956
 Dr. James H. Dunkley, Roanoke, February 6, 1956
 Dr. Manley Hunter Eames, Providence Forge, January 11, 1956
 Dr. Charles Mundy Edwards, Richmond, February 3, 1956
 Dr. Emily Gardner, Richmond, January 23, 1956
 Dr. John Milton Gouldin, Tappahannock, September 10, 1956
 Dr. Charles Fox Graham, Wytheville, February 22, 1956
 Dr. Stanley Hope Graves, Norfolk, February 2, 1956
 Dr. R. Sumter Griffith, Waynesboro, December 14, 1955
 Dr. James Martin Habel, Jetersville, March 6, 1956
 Dr. Thornton Wilson Hankins, Swoope, August 31, 1956
 Dr. Preston Garnett Hundley, Lynchburg, April 28, 1956
 Dr. Clarence Porter Jones, Newport News, February 27, 1956
 Dr. Alfred L. Kruger, Norfolk, December 25, 1955
 Dr. Charles Elroy Llewellyn, Richmond, August 24, 1956
 Dr. James Calvin Martin, Pulaski, August 12, 1956
 Dr. William Patton McDowell, Norfolk, December 31, 1955
 Dr. Alexander Eston Murray, Beaver Dam, April 28, 1956
 Dr. Ernest Benjamin Nuckols, Cumberland, July 11, 1956
 Dr. William Henry Parker, Richmond, June 13, 1956
 Dr. Seymour George Pelzer, Bristol, Tennessee, July 27, 1956

Dr. Emily Chenault Runyon, Richmond, April 2, 1956
Dr. John Armstrong Shackelford, Martinsville, February 5, 1956
Dr. Richard Wingfield Vaughan, Richmond, June 30, 1956
Dr. Junius Ernest Warinner, Richmond, September 4, 1956
Dr. William C. Webb, Disputanta, January 2, 1956

Woman's Auxiliary

As President of the Woman's Auxiliary to The Medical Society of Virginia it is my pleasure to report an increase in the number of Auxiliaries from 17 to 19 and an increase in membership from 1007 to 1109.

My official duties following election included presiding at the Post Convention Board meeting in Richmond, attending the National Conference of Presidents, Presidents-Elect, Officers and Chairmen of the Woman's Auxiliary to the American Medical Association in Chicago in November, presiding at the Mid-Winter Board meeting in Richmond in March, and am looking forward to conducting the Pre-Convention Board meeting and annual meeting in Roanoke.

Mrs. James Moss represented me at the National Auxiliary Convention until I was able to be there, for the last day and a half of the meeting.

I attended a meeting of the Council of The Medical Society of Virginia in Charlottesville.

Seventeen Auxiliaries were visited during the year, including organization meetings of our two new component Auxiliaries.

I would like to take this opportunity to sincerely thank all Officers, Chairmen, and Members of the Board for their cooperation in contributing to what I hope has been a successful year.

To Dr. James King, President of The Medical Society of Virginia, Dr. Outland, and his Advisory Committee, and Mr. Robert I. Howard, Executive Secretary-Treasurer, and his staff, my sincere appreciation on behalf of the Auxiliary, and personally.

MRS. M. W. GLOVER, *President*

Rehabilitation Committee

The Rehabilitation Committee of The Medical Society of Virginia met July 22, 1956, in Richmond.

The meeting was largely devoted to the discussion of Legislation which would be of help in the Vocational Rehabilitation of the handicapped in the State of Virginia.

The first subject under discussion was the question of a "Second Injury Law" and the great need for it in the State of Virginia. The term "second injury" as used in relation to Workman's Compensation, according to our present system, is if an employee has a disability resulting from a previous injury sustains another injury such that the disability resulting from the combined effects of both injuries is greater than if there had been no previous injury, the employer is liable for the compensation due for the total resulting disability. Because of the potential increased cost of compensation benefits, an employer may be influenced to refuse employment to handicapped persons. This danger has been found to be a great hindrance in securing employment for the handicapped in Virginia, especially in the larger businesses and industrial estab-

lishments employing enough men that industrial compensation insurance is required. All but a very few of the states now have laws which provide that the present employer is only liable for a certain portion of the resulting disability when it is complicated by a pre-existing disability. The remainder of the compensation is paid for from a Second Injury Fund, which is set up and financed in various ways. It was further discussed at length by the committee as to the absolute need of a second injury law. The State of Virginia has no such law or fund and is desperately in need of such a law if the handicapped and disabled are to be employed.

It was decided to draft a resolution to be presented to the House of Delegates of The Medical Society of Virginia, advocating the passage by the Legislature of the Commonwealth of Virginia of a second injury law and the establishment of a second injury fund as a proper and humane method of aiding the handicapped. Dr. Charles Savage, Dr. G. S. FitzHugh, and Dr. J. Treacy O'Hanlan were appointed as a committee to draft such a resolution.

The committee also discussed other pertinent legislation which would be of aid in the rehabilitation of handicapped persons. A committee was appointed to investigate present legislation in Virginia and other states and make recommendations of any additional legislation which would be of help to the State of Virginia. On this study group were appointed Dr. Benjamin Rawles, Dr. George Duncan, and Dr. Leroy Smith.

At a later meeting the resolution drawn up by the committee on second injury law was unanimously approved and is being submitted to The Medical Society of Virginia.

ROY M. HOOVER, M. D., *Chairman*

J. TREACY O'HANLAN, M. D., *Secretary*

Advisory Heart Committee

The Advisory Heart Committee of The Medical Society of Virginia met on June 19, 1956, in headquarters of The Medical Society of Virginia in Richmond. Members of the Committee present were Dr. Reno R. Porter, chairman, Dr. Julian R. Beckwith, Dr. C. D. Nofsinger and Dr. Walter Nalls. Also present was Dr. W. R. Southward, Jr., Director, Chronic Disease Control Bureau, State Department of Health.

The Committee met to consider a joint proposal coming from the Bureau of Chronic Disease Control of the State Health Department and the Medical College of Virginia. This proposal had to do with support by the Bureau of Chronic Disease Control of facilities at the Medical College of Virginia designed to furnish diagnostic and advisory service to indigent and medically indigent cardiac patients, to promote education and to serve as a center for certain research activities relating to heart disease.

After considerable discussion, the Committee approved the support of a Cardiac Work Classification Unit for the Richmond area to be located in the Medical College of Virginia. The purpose of this clinic to serve as a center in which a team (composed of cardiologists, psychiatrists, vocational counselors, physiatrists, etc.) can evaluate the status and work capabilities of cardiac patients, determine the type of job for which they are qualified and place them in such jobs. This Unit will not

replace or compete with any existing facility but will serve as a central coordinating unit in which existing agencies will actively participate. Referrals to this clinic will be from private physicians, public agencies and industrial physicians. Although the Unit may give advice regarding treatment, no specific treatment will be done by the Unit, leaving this in the hands of the referring physician or other appropriate clinic. This support can be extended to other areas of the state if there appears to be a need for such a facility and approval is obtained from the local medical society concerned.

The Committee approved similar support of a Medical-Surgical Cardiac Evaluation Clinic. The purpose of this clinic is to afford a central facility where patients with potentially correctable cardiovascular defects can be seen at a single visit and their cardiac problems evaluated by a team of cardiologists and cardiovascular surgeons.

The Committee further approved the expenditure of funds by the Bureau of Chronic Disease Control to purchase penicillin and related drugs for the continuation of the rheumatic fever prophylaxis program in patients who have reached the upper age limit and can no longer be followed by the Rheumatic Fever Section of the Crippled Children's Bureau of the State Department of Health. Evidence is accumulating that such prophylaxis programs are of definite benefit in childhood and probably should be continued on into the adult years and, perhaps, throughout the patient's life. Whether adult prophylaxis is of value remains to be seen, but it will be from data, such as can be obtained by a continuation of this program, that final decisions can be reached regarding the efficacy of such programs during the adult years.

JULIAN R. BECKWITH, M. D.
 GEORGE B. CRADDOCK, M. D.
 WALTER NALLS, N. D.
 C. D. NOFSINGER, M. D.
 RENO R. PORTER, M. D., *Chairman*

Program Committee

The Program Committee wishes to express its appreciation to our President, Dr. King, for his help in planning the program and in obtaining one of our guest speakers. We are grateful to Dr. Harry C. Bates, Jr., of Arlington, for his aid in arranging our panel with the Press on Wednesday. We hope that as many members of The Medical Society as can possibly do so will remain over for this panel; it has been very popular with other medical societies and we have a very strong panel.

Finally, we want all of you to know how much Mr. Robert Howard has helped us with the work of lining up and assembling the program. Without his aid it would not have been accomplished and we are very grateful to him.

IRA L. HANCOCK, M. D.
 A. L. CREECY, M. D.
 MARY ELIZABETH JOHNSTON, M. D.
 JULIAN R. BECKWITH, M. D.
 ELAM C. TOONE, JR., M. D.
 GEORGE B. CRADDOCK, M. D., *Chairman*

Venereal Disease

This is a preliminary report of confidential cases of venereal disease cases seen by physicians in Virginia

during the month of July 1956.

In June 1956, at the request of this Committee, the Bureau of Chronic Disease Control, State Department of Health, prepared and mailed to all physicians and hospitals a Schedule for Confidential Survey of Venereal Disease Cases Among Patients Seen During the Month of July 1956. One purpose of this survey was to obtain a realistic idea of the extent of the venereal disease problem in Virginia. The schedules were to be returned to the Bureau of Chronic Disease Control as soon after the first of August as possible, allowing time for establishment of differential diagnosis for cases for whom laboratory evidence of venereal disease had been obtained during July. As of October 8, 1956, only 60.4 per cent of the physicians in the State had returned these schedules completed. We are, therefore, unable to submit a definitive report. We are, however, presenting a preliminary report. While no definite conclusion can be made, it appears evident that there is a great deal more gonorrhea in the State than the annual morbidity rates of the State Health Department show, and that there probably is considerably more syphilis than is indicated by these morbidity rates.

We hope to be able to submit a complete report on the findings of this survey and urge all physicians who have not returned the schedules to do so at their earliest possible convenience.

There follows a preliminary report of the findings.

Number of active physicians in private practice and private hospitals to whom schedules were sent.....2,460
 Number who have returned the schedules through October 8, 1956.....1,485
 Percentage returned 60.4

Number of private physicians and hospitals who reported that they saw no venereal disease cases in July1,231

None called at office1,105
 Specialists who do not see V.D. cases ---- 92
 On vacation or ill 20
 Member of staff, other physician reported 8
 Refused to furnish any information ---- 6

Number who reported seeing at least one case in July 254
 TOTAL.....1,485

Number of new cases reported by 254 physicians and hospitals who saw at least one case of venereal disease in July as listed on the schedule; number of new cases of venereal disease reported in July 1956 by all physicians submitting morbidity reports; by diagnosis and stage.

	All Syph.	Pri. Sec.	Early Latent	Gonor- Other	Other rhea	V.D.
Reported on Schedule.....	167	13	27	127	517	4
Reported on Morbidity						
Reports	157	5	21	131	64	1

Number of old and new cases reported as seen during the month of July by 254 physicians and hospitals who saw at least one case of venereal disease in July as listed on the schedule; by disease.

	All Syphilis	Gonorrhea	Chancroid
Reported on Schedule	300	575	4
Total morbidity of syphilis and gonorrhea reported in Virginia during the twelve month period from August 1, 1955 through July 31, 1956; by source; and by disease.			

	Syphilis	Gonorrhea
Private Physicians -----	2,325	891
Public Clinics and Institutions -----	1,578	6,179
Total -----	3,903	7,070

Estimated morbidity of syphilis and gonorrhea which would have been reported in Virginia during the twelve month period from August 1, 1955 through July 31, 1956 if the same ratio of under-reporting indicated by the schedules for July 1956 had prevailed during the previous eleven months; by reporting source (estimated for private physicians); and by disease.

	Syphilis	Gonorrhea
Private Physicians (Estimated)* -----	2,465	7,199
Public Clinics and Institutions -----	1,578	6,179
Total -----	4,043	13,378

* Estimate based on application of under-reporting as shown by comparison of schedules received from 60.4 per cent of the private physicians and hospitals during July 1956 to actual morbidity reported by all private physicians and hospitals in the State of Virginia, during July 1956.

AUDITOR'S REPORT

OFFICERS AND COUNCILORS
THE MEDICAL SOCIETY OF VIRGINIA
RICHMOND, VIRGINIA
GENTLEMEN:

We have made an examination of the books and records of THE MEDICAL SOCIETY OF VIRGINIA, Richmond, Virginia, for the fiscal year ended September 30, 1956, and have prepared therefrom the Balance Sheet, Exhibit "A", and Statement of Income and Expenses, Exhibit "B". With the exceptions noted in the immediately following paragraph, our examination was made in accordance with generally accepted auditing standards and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

We did not verify the accounts receivable by direct correspondence with the debtors, nor did we verify the accounts payable. It will be noted from the balance sheet that the amounts of these items are not material in relation to the financial position as a whole.

It is our opinion that the Balance Sheet, Exhibit "A", presents fairly the financial position of the Society at September 30, 1956, in accordance with generally accepted principles of accounting. The Statement of Income, Exhibit "B", is prepared on a basis of cash actually received and disbursed.

Yours very truly,
MITCHELL, WIGGINS & COMPANY
By J. SYDNOR MITCHELL
Certified Public Accountant

FINANCIAL CONDITION

The financial condition of the Society at September 30, 1956, is shown in the Balance Sheet, Exhibit "A", on the accrual basis. A summary thereof is presented as follows in comparison with the financial condition for the two preceding years:

ASSETS	9-30-56	9-30-55	9-30-54
Cash -----	\$ 82,569.94	\$ 71,316.46	\$ 55,308.33
Accounts receivable	3,127.17	3,409.64	2,531.57
Investments -----	47,796.53	46,081.03	43,134.02

Land, buildings and equipment -----	43,061.10	43,061.10	43,061.10
TOTAL—ALL FUNDS	\$176,554.74	\$163,868.23	\$144,035.02

LIABILITIES, SURPLUS AND FUND BALANCE

Liabilities:

Accounts payable \$ 1,899.45 \$ 1,883.55 \$ 1,323.02

Surplus:

General Fund -- 131,594.19 118,923.58 99,650.90

Fund Balance:

Plant Fund ----- 43,061.10 43,061.10 43,061.10

TOTAL—ALL FUNDS \$176,554.74 \$163,868.23 \$144,035.02

Analyses and explanation of the more important balance sheet items follow:

CASH—\$82,569.94

Recorded cash receipts were accounted for by deposits in the banks and disbursements were supported by properly signed and endorsed paid checks. Balances on deposit at September 30, 1956, were confirmed by direct correspondence with the banks as follows:

First and Merchants National Bank—Checking account -----	\$53,794.92
First and Merchants National Bank—Savings account -----	7,034.75
The Bank of Virginia—Savings account -----	40.92
Southern Bank and Trust Company—Savings account -----	1,083.81
Franklin Federal Savings and Loan Association—Savings account -----	10,287.55
Richmond Federal Savings and Loan Association—Savings account -----	10,327.99

TOTAL ----- \$82,569.94

INVESTMENTS—\$47,796.53

United States Savings Bonds, as shown in Schedule 1, were verified by inspection of the securities held in a safe deposit box at First and Merchants National Bank, Richmond, Virginia. They are shown in the balance sheet at their current redemption value.

Certificates of deposit were verified by direct correspondence with the Bank of Virginia.

FIXED ASSETS—\$43,061.10

Details of the fixed assets carried in the Plant Fund are shown in Schedule 2. No indebtedness against these assets was disclosed by the records.

OPERATIONS

The income and expenses for the fiscal year ended September 30, 1956, are shown in Exhibit "B", prepared on the cash receipts and disbursements basis. A summary of income and expenses in comparison with that of the two preceding years is presented as follows:

	FISCAL YEAR ENDED		
	9-30-56	9-30-55	9-30-54
INCOME			
Membership dues --	\$51,257.85	\$48,923.83	\$46,028.26
Medical monthly publication -----	24,251.73	21,674.26	20,075.39

Other income	4,169.80	1,825.64	543.93
TOTAL	\$79,679.38	\$72,423.73	\$66,647.58
EXPENSES			
Executive office	\$63,572.69	\$51,037.80	\$58,106.62
Public relations department	1,483.21	2,397.80	1,816.42
TOTAL	\$65,055.90	\$53,435.60	\$59,923.04
INCOME OVER EXPENSES			
	\$14,623.48	\$18,988.13	\$ 6,724.54

IN GENERAL

The bookkeeping records were found to have been kept in a satisfactory manner.

Insurance in force at September 30, 1956, determined from policies on file, was as listed below:

FIRE

Office furniture and fixtures	\$ 6,000.00
Building—1105 West Franklin Street, Richmond, Virginia	26,000.00
Walter Reed House, Belroi, Virginia	2,000.00

LIABILITY—OWNER'S, LANDLORD'S, AND TENANT'S

Bodily injury	\$25,000.00	\$50,000.00
Property damage		5,000.00

FIDELITY BONDS

Executive Secretary-Treasurer	5,000.00
Secretary	5,000.00

PERSONAL PROPERTY FLOATER

All risk—Camera	400.00
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BALANCE SHEET September 30, 1956

EXHIBIT "A"

ASSETS

GENERAL FUND

Cash in banks	\$ 82,569.94
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Accounts receivable:

Due from members—Estimated collectible value—1956 dues— 50 @ \$25.00 -----	\$ 1,250.00	
Advertising—Virginia Medical Monthly -----	1,877.17	3,127.17

Investments:

United States Savings Bonds— Present value (Schedule 1)	\$37,661.00	
Certificates of Deposit—Bank of Virginia -----	10,135.53	47,796.53
		<hr/>
		\$133,493.64

PLANT FUND

Land and buildings—At cost (Schedule 2)	\$ 35,061.10
Furniture and equipment: (Schedule 2) Estimated value—October 1, 1950	\$ 7,048.35

Cost of acquisitions since

October 1, 1950	951.65	8,000.00
		\$ 43,061.10

EXHIBIT "A"

LIABILITIES AND SURPLUS

GENERAL FUND

Accounts payable:

Preparation of Medical Journal— September, 1956	\$ 1,899.45
--	-------------

Surplus:

Balance—October 1, 1955	\$118,923.58
Add: Net cash increase	14,623.48
Increase in Certificate of Deposit	282.50
TOTAL	\$133,829.56

Deduct: Decrease in accounts

receivable \$ -282.47

Increase in

accounts payable -- 15.90

Bond interest

adjust-
ment -- 1,937.00 2,235.37

Balance—September 30, 1956	\$131,594.19
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\$133,493.64

PLANT FUND

Surplus invested in plant assets	\$ 43,061.10
----------------------------------	--------------

\$ 43,061.10

STATEMENT OF INCOME AND EXPENSES

For the Fiscal Year Ended September 30, 1956

EXHIBIT "B"

ACTUAL BUDGET

GROSS INCOME

Membership dues -----	\$51,257.85	
History of Medicine in Virginia --	123.23	
Interest on investments -----	3,676.33	
American Medical Association --	370.24	
Virginia Medical Monthly:		
Advertising -----	\$23,934.23	
Subscription—Non-		
members -----	317.50	24,251.73
TOTAL -----		\$79,679.38

EXPENSES

Executive office:

Salaries	\$22,137.50	\$24,000.00
Telephone and telegrams	1,350.54	1,500.00
Postage	994.98	650.00
Stationery and office supplies	1,258.34	800.00

Office equipment—Repairs and replacements -----	988.25	1,400.00
Building maintenance and repairs—Net -----	2,127.35	2,600.00
Convention expenses—Net ---- (	3,730.17)	1,000.00
Council expenses -----	1,692.96	2,500.00
Delegates and executive assistant to A.M.A. -----	960.75	1,850.00
President's expenses -----	674.57	1,000.00
Traveling expenses -----	1,668.42	2,000.00
Preparation and distribution of Medical Journal -----	21,691.53	18,500.00
Scientific exhibits -----	2,195.30	2,500.00
Department of clinical and medical education -----	-	1,000.00
Legislative committee -----	2,491.00	2,000.00
Walter Reed commission ----	34.80	500.00
Woman's auxiliary -----	15.00	100.00
Membership dues—Affiliated agencies -----	125.00	150.00
Editor—Virginia Medical Monthly -----	600.00	600.00
<i>Special appropriations:</i>		
Virginia Council Health and Medical Care -----	2,000.00	2,000.00
American Medical Education Foundation -----	3,000.00	3,000.00
National Society on Medical Research -----	150.00	150.00
Student — American Medical Association -----	100.00	200.00
National Conference of Physicians and Schools -----	-	80.00
Speed Graphic Camera ----	325.77	400.00
Social security taxes -----	352.80	425.00
Miscellaneous -----	368.00	500.00
TOTAL—EXECUTIVE OFFICE	\$63,572.69	\$71,405.00

Public Relations Department:

Conference expenses -----	\$ 787.02	\$ 650.00
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Radio and press -----	575.94	600.00
Literature and bulletins -----	120.25	1,250.00
Exhibits -----	-	100.00
Miscellaneous projects -----	-	200.00

TOTAL PUBLIC RELATIONS

DEPARTMENT -----	\$ 1,483.21	\$ 2,800.00
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TOTAL EXPENSES -----	\$65,055.90	\$74,205.00
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EXCESS OF INCOME OVER

EXPENSES -----	\$14,623.48
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FIXED ASSETS

September 30, 1956

SCHEDULE 2

PLANT FUND

LAND AND BUILDINGS—At cost

Walter Reed House, Belroi, Virginia ----	\$ 1,000.00
--	-------------

Office building—1105 West Franklin Street, Richmond, Virginia -----	34,061.10
---	-----------

TOTAL LAND AND BUILDINGS -----	\$35,061.10
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OFFICE FURNITURE AND EQUIPMENT

Estimated insurable value at October 1, 1950	\$ 7,048.35
--	-------------

Purchased during year ended September 30, 1951:

Adding machine -----	\$100.00
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Addressograph—Multigraph stand -----	127.50
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Protectograph—Check writer ----	110.30
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Typewriter -----	156.20
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File cabinets (2) -----	71.50
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Vacuum cleaner -----	69.95
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Desks and chairs (2) -----	316.20	951.65
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TOTAL OFFICE FURNITURE

AND EQUIPMENT -----	\$ 8,000.00
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TOTAL FIXED ASSETS -----	\$43,061.10
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INVESTMENT BONDS

September 30, 1956

SCHEDULE 1

BONDS	SERIES	No. BONDS	DATED	DUE	VALUE AT MATURITY	COST	VALUE AT 9-30-55	VALUE AT 9-30-56
U. S. Savings ----	F	2	12-1-44	12-1-56	\$ 1,000.00	\$ 740.00	\$ 945.00	\$ 980.00
U. S. Savings ----	F	2	5-1-45	5-1-57	1,000.00	740.00	929.00	962.00
U. S. Savings ----	F	7	11-1-45	11-1-57	7,000.00	5,180.00	6,398.00	6,615.00
U. S. Savings ----	F	1	3-1-46	3-1-58	500.00	370.00	457.00	472.50
U. S. Savings ----	F	10	3-1-46	3-1-58	10,000.00	7,400.00	9,140.00	9,450.00
U. S. Savings ----	F	6	10-1-49	10-1-61	3,000.00	2,220.00	2,427.00	2,505.00
U. S. Savings ----	J	13	5-1-55	5-1-67	6,500.00	4,680.00	4,680.00	4,738.50
U. S. Savings ----	J	11	12-1-55	12-1-67	11,000.00	7,920.00	-	7,964.00
U. S. Savings ----	J	1	12-1-55	12-1-67	500.00	360.00	-	362.00
U. S. Savings ----	J	1	1-1-56	1-1-68	1,000.00	720.00	-	724.00
U. S. Savings ----	J	2	2-1-56	2-1-68	2,000.00	1,440.00	-	1,448.00
U. S. Savings ----	J	2	7-1-56	7-1-68	2,000.00	1,440.00	-	1,440.00
TOTALS -----					\$45,500.00	\$33,210.00	\$24,976.00	\$37,661.00

(Exhibit "A")

SEEN AT THE ANNUAL MEETING.



1. Dr. King surrenders the gavel to Dr. Hagood, while Mr. Gheen, the banquet speaker looks on. 2. Dr. O. Anderson Engh and Dr. King discuss "Abilities Incorporated" with the guest speaker, Mr. Henry Viscardi (center). 3. One hundred and fifty years of practice—Dr. Ray Moore, Dr. J. R. Parker, and Dr. J. C. Motley. 4. First prize for an individual doctor exhibit—Dr. R. H. Fisher, Roanoke. 5. First prize for the institutional exhibit—Drs. Vincent Hollander, Gayle Crutchfield and Juan Martinez-G.

Woman's Auxiliary . . .

<i>President</i>	Mrs. Lee S. Liggan, Irvington
<i>President-Elect</i>	Mrs. John R. St. George, Portsmouth
<i>Vice-Presidents</i>	Mrs. Maurice Bray, Suffolk
	Mrs. J. Rollins McGriff, McLean
	Mrs. H. H. Howze, Norton
<i>Recording Secretary</i>	Mrs. James R. Grinels, Richmond
<i>Corresponding Secretary</i>	Mrs. A. B. Gravatt, Jr., Kilmarnock
<i>Treasurer</i>	Mrs. Robert H. Detwiler, Arlington
<i>Publication Chairman</i>	Mrs. Paul Pearson, Warsaw

Minutes of Annual Meeting.

The thirty fourth annual meeting of the Woman's Auxiliary to The Medical Society of Virginia convened in the Pine Room, Hotel Roanoke, Roanoke, Virginia, on October 16, 1956. Mrs. Mervin W. Glover, President, of Arlington, presided.

The meeting was called to order by the President and the Invocation was given by Mrs. Hawes Campbell, after which the Auxiliary Pledge was repeated in unison. The Address of Welcome was given by Mrs. F. Clyde Bedsaul, President of the Woman's Auxiliary to the Southwestern Medical Society, followed by the Response from Mrs. Raymond B. Hutchinson of Arlington.

The President asked that delegates and members of the Convention sign at the door, and that roll call be dispensed with.

Motion was made, seconded, and carried, that the reading of the minutes of the 1955 Convention be dispensed with and that they be approved as read by the Reading Committee appointed at the 1955 Post-Convention Board meeting, the Committee being Mrs. Maynard R. Emlaw, Mrs. William C. Barr, and Mrs. James R. Grinels.

The "In Memoriam" service was conducted by Mrs. Hawes Campbell, of Richmond, for the following: Mrs. George Speck, Mrs. Clarence Freeman, Mrs. Frank Smart, Mrs. Clyde Vick, Jr. and Mrs. Fletcher Wright, Sr.

Mrs. Glover presented our guests, Mrs. Robert Flanders, of Manchester, New Hampshire, President of the Woman's Auxiliary to the American Medical Association, who spoke on "Health Is Our Heritage", and Mrs. John J. O'Connell of St. Louis, Missouri, President of the Woman's Auxiliary to the Southern Medical Association, who told us of the activities of the Auxiliary to Southern and invited members to attend the Convention to be held in Washington, D. C. November 12-15.

Mrs. Glover, President, gave her annual report.

Reports of Officers, Standing Committees, Special Committees, and the County Presidents were presented.

Mrs. John O. Boyd, Jr., Chairman of Registration, reported a total registration of 243.

Mrs. James Gilbert presented the Budget for 1956-57.

The following recommendations were made by the Board of Directors, read by the Recording Secretary, who moved the adoption of the resolutions:

1. The Board of Directors of the Woman's Auxiliary to The Medical Society of Virginia recommends that the sum of \$50.00 be included in the Budget for 1956-57 to be used for philanthropic projects, \$25.00 of this contributed to Crippled Children's Hospital, Richmond, Va. and \$25.00 to the Sheltering Arms Hospital, Richmond, Va.
2. The Board of Directors of the Woman's Auxiliary to The Medical Society of Virginia recommends that the Delegates from Virginia to the meeting of the Auxiliary to the American Medical Association go uninstructed as to how to vote on the recommendation from the Reference Committee concerning reduction of the number of members of the House of Delegates of the Woman's Auxiliary to the American Medical Association.

Motion was seconded and carried.

Mrs. Charles A. Easley read the Courtesy Resolutions and moved their adoption. The motion was seconded and carried. The Courtesy Resolutions follow:

WHEREAS, The Woman's Auxiliary to The Medical Society of Virginia in Convention assembled, has been the recipient of many courtesies,

THEREFORE BE IT RESOLVED, that The Medical Society of Virginia and Dr. Charles L. Outland, Chairman of the Advisory Council, be commended for their cooperation and energies extended for the integration and progress of our work during the year, and that tribute be extended and thanks be given to The Medical Society of Virginia and to the Southwestern Virginia Medical Society for cardinal courtesies given to us during this, the thirty-fourth Annual Meeting of the Woman's Auxiliary to The Medical Society of Virginia, held in Roanoke, Virginia, October 14-17, 1956 and,

BE IT RESOLVED, that the Woman's Auxiliary

to The Medical Society of Virginia project its sincere appreciation to all of the following who individually and collectively are largely responsible for making this meeting a memorable occasion.

- 1—To the Chairman of Arrangements, Mrs. Edwin J. Palmer, and her Co-Chairman, Mrs. Homer Bartley.
- 2—To Mrs. Robert Flanders, President of the Woman's Auxiliary to the American Medical Association.
- 3—To Mrs. John J. O'Connell, President of the Woman's Auxiliary to the Southern Medical Association.
- 4—To the Management of the Hotel Roanoke.
- 5—To Samuel Spigel Inc. for the Fashion Show.
- 6—To Propst-Childress Shoe Co. for shoes for the Fashion Show.
- 7—To Peoples Drug Company for favors for the luncheon and for note pads and pencils for convenience of the members at the General Annual Meeting.
- 8—And, to every member of the Roanoke Committee whose effectual planning and execution of detail have made this Convention successful, and especially do we extend our heartfelt appreciation and affection to our President, Mrs. Mervin Glover whose ennobling expressions of good judgment in her appointments, her undeniable capacity for gracious presiding and her inspiring leadership, have made her administration outstanding.

To all who have contributed so generously, thank you.

AND BE IT FURTHER RESOLVED, that a copy of this resolution be spread upon the minutes of the Auxiliary and letters be written to each individual and organization mentioned in this resolution to express our sincere thanks.

Mrs. Lee B. Martin, Chairman of the Nominating Committee, read the slate of officers as selected by the Nominating Committee. Opportunity was given for nominations from the floor. There being none, motion was made and seconded that the nominations be closed. Motion carried. The slate was voted on as a whole and officers were elected as presented by the Nominating Committee.

The slate of officers follows:

President—Mrs. Lee S. Liggan, Irvington

President-Elect—Mrs. John R. St. George, Portsmouth

First Vice-President—Mrs. Maurice Bray, Suffolk

Second Vice-President—Mrs. J. Rollins McGriff, McLean

Third Vice-President—Mrs. H. H. Howze, Norton
Recording Secretary—Mrs. James R. Grinels, Richmond

Treasurer—Mrs. Robert H. Detwiler, Arlington
Corresponding Secretary—Mrs. A. B. Gravatt, Jr., Kilmarnock

Directors—Mrs. J. L. DeCormis, Accomac
Mrs. Maynard R. Emlaw, Richmond
Mrs. Mervin W. Glover, Arlington

The officers were installed by Mrs. Robert Flanders. The President's Pin and gavel were presented to Mrs. Liggan by the outgoing President, Mrs. Glover. Mrs. Maynard Emlaw presented the Past-President's Pin to Mrs. Glover.

Mrs. Liggan, the new President, made a short acceptance talk.

The meeting was recessed at 11:45 a.m. to reconvene at 12:30 p.m. for luncheon at the Roanoke Country Club.

The Luncheon Meeting was called to order by the President, Mrs. Lee S. Liggan. The Invocation was given by Mrs. Walter R. Porter. Mrs. Liggan introduced the Honored Guests. Following Luncheon a beautiful Fashion Show was presented by Samuel Spigel, Inc., after which the Thirty-Fourth Annual Meeting of the Woman's Auxiliary to The Medical Society of Virginia was adjourned.

ALMA REYNOLDS GRINELS,
Recording Secretary
(MRS. JAMES R.)

Committee Chairmen

Mrs. Lee S. Liggan, President, has announced the appointment of her Committee Chairmen for 1956-57.
Standing Committee Chairmen:

Finance—Mrs. Kalford W. Howard, Portsmouth.

Legislation—Mrs. Levi W. Hulley, Jr., Richmond

Organization—Mrs. John R. St. George, Portsmouth.
Program—Mrs. Maurice Bray, Suffolk.

Publications—Mrs. Paul Pearson, Warsaw.

Public Relations—Mrs. Kalford W. Howard, Portsmouth.

Revisions—Mrs. Richard M. Reynolds, Norfolk.

"Today's Health"—Mrs. Robert Keeling, South Hill.
Special Committee Chairmen:

American Medical Education Foundation—Mrs. C. M. McCoy, Norfolk.

Civil Defense—Mrs. Girard V. Thompson, Chatham.

Mental Health—Mrs. Thomas N. Hunnicutt, Jr., Newport News.

Councilor to Southern—Mrs. Walter A. Porter, Hillsville.

Bulletin—Mrs. J. R. B. Hutchinson, Arlington.
Clipping Service—Mrs. R. H. Harrington, Marion.
Recruitment—Mrs. Herman Farber, Petersburg.
Cancer Control—Mrs. Charles A. Easley, Danville.
Leigh-Hodges-Wright Memorial—Mrs. William C. Barr, Richmond.

Historian—Mrs. Hawes Campbell, Richmond.
Research and Romance of Medicine—Mrs. James M. Moss, Alexandria.

Philanthropic Projects—Mrs. Rufus Brittain, Tazewell.

Parliamentarian—Mrs. Maynard R. Emlaw, Richmond.

Members at large—Mrs. T. Nash Thompson, Stuart.

In Memoriam—Mrs. Wright.

The following tribute to the memory of Mrs. Fletcher J. Wright, Sr., written by Mrs. J. E. Hamner, of Petersburg, was read by the Chairman, Mrs. Maynard R. Emlaw, at the Past Presidents' Breakfast held at the close of the Thirty-fourth Annual Convention of the Woman's Auxiliary to The Medical Society of Virginia, October 17, 1956, at Hotel Roanoke:

The Past Presidents of the Woman's Auxiliary to The Medical Society of Virginia, fully cognizant of the omniscience of Almighty God and trusting in His goodness and divine love, do in humility and devotion most earnestly desire to pay tribute to a beloved and esteemed friend and colleague, Mrs. Fletcher J. Wright, Sr.

Any true estimate of Mrs. Wright's personality must necessarily emphasize her loyalty. Her unflinching faithfulness to her church, her unselfish loyalty to her friends and utter devotion to her family were well known. Her dedication to every responsibility placed upon her was accompanied by a cheerfulness of manner that endeared her to all who were privileged to work with her.

Through the years this organization depended upon her capable leadership and relied on her sound judgment. In the hearts of the members of the Medical Auxiliary her vital spirit will ever be cherished among their happiest memories.

The Past Presidents of the Auxiliary extend to her family their heartfelt condolence and deepest sympathy.

LOUISE J. HAMNER
(MRS. J. E. HAMNER)
President, 1946-1947

Mid-Tidewater.

This Auxiliary met in the home of Mrs. J. W. Chinn, Tappahannock, on October 23rd, with the

president, Mrs. Raymond S. Brown, presiding. There were eleven members present out of a membership of twenty.

The President gave a report of the state meeting of the Auxiliary which was held in Roanoke.

It was decided to have a program planned for each meeting, the next one to be held on the fourth Tuesday in January in West Point.

Northern Neck.

This Auxiliary met at the Indian Creek Yacht and Country Club at Byrdton on October 25th, at which time they welcomed home Mrs. Lee S. Liggan, who had been installed as State President, Mrs. A. B. Gravatt, Jr., as corresponding secretary, and Mrs. Paul Pearson as state publications chairman.

The members of the Auxiliary and their guests were guests of the Northern Neck Medical Society for lunch and of the Richmond Surgical Supply Company for an oyster roast dinner.

Mrs. C. A. G. Dawe, Irvington, reviewed the book "The Doctor Wears Three Faces" by Mary Bard.

The Auxiliary welcomed two new members, Mrs. David Levine of Mollusk and Mrs. Myrna Quick of Ditchley.

Fairfax.

A get-acquainted luncheon for members and prospective members of the Auxiliary to the Fairfax County Society was held at the beautiful home of Mrs. F. R. Klune, Lorton, on September 18th. Members enjoyed a buffet of ham and turkey with all the trimmings.

Mrs. Emanuel Newman, President, welcomed the members and guests and briefly outlined the various activities of the Auxiliary. She also announced that the one big fund-raising activity this year would be the Fashion Show for the benefit of the new Fairfax Hospital.

Inga, famous for her morning and afternoon television shows, was the Master of Ceremonies at the Fashion Show held on October 9th at the Falls Church High School. The fashions were by Jelleff's and local merchants had contributed door prizes and light refreshments.

HELEN BARSANTI

Arlington.

The first fall luncheon meeting of this Auxiliary was held on September 11th in the Conference Room of the Arlington Hospital. Mr. John J. Anderson, Administrator of the Hospital, was our gracious host. After the luncheon, Mrs. Thomas A. McGavin, president, held a short business meeting.

The Auxiliary sponsored, on October 16th, a pre-

sensation of the musical hit "Allegro", presented by the Falls Church Players at the Falls Church High School Auditorium.

The annual TB sale is to be held at the Arlington Trust Company the first week in December.

The annual dinner-dance sponsored by the Auxiliary was held at the Washington Golf and Country Club on November 28th.

New officers for this Auxiliary are: President, Mrs. Thomas A. McGavin; president-elect, Mrs. Sigmund Newman; vice-president, Mrs. Hermann Diamant; recording secretary, Mrs. Landon Gant; corresponding secretary, Mrs. William Dolan; historian, Mrs. James C. Waters and parliamentarian, Mrs. K. C. Latven. Committee chairmen are: membership, Mrs. Lloyd Burk; program, Mrs. Leonard Weil; press and public relations, Mrs. Hatch Ster-

rett; and Today's Health, Mrs. Anthony DiSario.

Northampton-Accomac.

This Auxiliary held its fall meeting on October 23rd at the home of Mrs. John W. Robertson in Onancock, with eighteen members and three guests present. A social period and dessert course preceded the business meeting. It was stated that four new blankets had been given the Grace Wilkins Holland Memorial Room in the Northampton Accomac Hospital.

New officers for 1957 were installed by Mrs. J. L. DeCormis, as follows: President, Mrs. W. A. Eskridge; vice-president and president-elect, Mrs. Milton Kellam; treasurer, Mrs. John R. Freeman; and secretary, Mrs. R. K. Brown.

CATHERINE R. TROWER

Chairman, Press and Publicity

Mental Tests Suggested

A series of mental tests has been suggested as a way of deciding whether an aging person should retire, remain in his job or turn to a less taxing occupation. Tests which could give an indication of mental adaptability, judgment and reasoning ability were suggested in an editorial in the September 15th Journal of the American Medical Association. It accompanied an announcement of objectives by the new A.M.A. committee on aging.

The tests could be a of "enormous benefit" to business and to aging persons by keeping the alert older employee on the job. Many aging persons now are forced to retire prematurely solely on the basis of their chronological age. In other cases, the tests could show an individual that it is time to turn to a less taxing job, which could prolong his life.

This, however, is only one of the important problems connected with aging. With the progressive increase in the number of persons living beyond 60 years, more and more attention is being focused on the diseases which attack the aged person, and on ways of keeping him active and relatively healthy, the editorial said.

The problems of aging extend from questions of "changes in enzyme systems within individual cells" to important social and economic problems of aged

persons and their relation to other members of society, the committee statement said.

In recognition of these problems, the A.M.A.'s council on medical service has established a committee on aging, formerly called the committee on geriatrics. The committee announced that at its first meeting it set forth several objectives including the exploration of the medical, biological, psychological and social aspects of aging. It plans to collect information concerning energy maintenance, fatigue control, and the preservation of motivation, and to promote research in these areas. In addition to informing the medical profession of the availability of information about the aging process, the committee hopes to stimulate medical society interest in the problems of aging and to impress upon the practicing physician the important role he can play by assuming community leadership to enrich the lives of older citizens.

The members of the committee on aging are Drs. Henry B. Mulholland, Charlottesville, Va., chairman; Edward L. Bortz, Philadelphia; Henry A. Holle, Austin, Texas; Wingate M. Johnson, Winston-Salem, N. C.; Theodore G. Klumpp, New York; Cecil Wittson, Omaha, and Frederick C. Swartz, Lansing, Mich.

Book Announcements . . .

The Truth About Cancer. By CHARLES S. CAMERON, M.D., Medical and Scientific Director, American Cancer Society. Prentice-Hall, Inc., Englewood Cliffs, New Jersey. 1956. xix-268 pages. Illustrated. Price \$4.95.

The author of this book is the Medical and Scientific Director of the American Cancer Society. The book is written for the average layman and not for the physician. The senior in college preparing to enter medical school would undoubtedly find it interesting and informative reading. The subject is not presented in its entirety nor is it intended to do so; the first portion effectively brings to the reader's attention the natural history of the disease including some aspects of its etiology, incidence, important danger signals, diagnosis, treatment and current research findings. The most interesting chapters to the layman are those on misconceptions about cancer and the cancer quacks. The second portion of the book deals with the more important types of cancer.

The material is presented in natural sequence so that the reader is carefully led through the seemingly complex problem of cancer without becoming confused or disinterested. This is due in part to the accurate, though simplified, explanation of the more commonly used words of medical terminology.

The most important point made in this book is that cancer is, in most instances, curable IF the condition is recognized early in its course and promptly and adequately treated. In an attempt to accomplish this goal, the author stresses the importance of self-examination and frequent medical examinations by the family doctor.

HENRY HAHN, JR.

A Dictionary of Dietetics. By RHODA ELLIS, Ph.D., Instructor of Foods and Nutrition, Department of Home Economics, Brooklyn College, New York. Philosophical Library, New York. 1956. 152 pages. Price \$6.00.

This book embodies the noble idea of attempting to give a brief definition of everything related to dietetics. It will probably have limited use, however, because it contains only partial and sometimes inaccurate (See Book Reviews: J. Am. Diet. Assoc., Vol. 32, p. 733, 1956) information on a wide variety of subjects. It is felt, therefore, that persons who need a dictionary of dietetics should continue to use standard handbooks and texts of proven value.

ERNA MAE BEHREND

ELIZABETH A. LOUNDS

Hunterdon Medical Center. The Story of One Approach to Rural Medical Care. By RAY E. TRUSSELL, M.D., M.P.H., Executive Officer of the Columbia University School of Public Health and Administrative Medicine. Published for The Commonwealth Fund by Harvard University Press, Cambridge, Mass. 1956. xxiii-236 pages. Illustrated. Price \$3.75.

It has been recognized for many years that there has been, and still is, considerable discrepancy between the availability and quality of medical care in the rural areas of this country and in urban communities. Problems of rural health and medical care are attracting the increasing attention of thoughtful persons in the health professions.

This book, written by Dr. Ray E. Trussell, the first director of Hunterdon Medical Center, is a detailed account of the conception, birth and development of a rural hospital and health center which was nurtured by an agricultural community whose citizens were endowed with an unusual degree of vision.

Dr. E. H. L. Corwin acted as consultant for the project. The final statement in his report has set the tone for the entire operation.

"To sum up, if Hunterdon County were to build just another hospital, I would be lukewarm to the proposition, but if the hospital is projected in terms of a progressive institution with a university affiliation, a model of its kind, aimed to bring what is best in medicine to a rural area, and has associated with an active full-fledged health center and a good follow through social service, I will be strongly for it. . . . There is unquestionably enough civic pride and business enterprise in this community to bring the plan for a hospital and health center to a successful consummation."

Nowhere, to anyone's knowledge, had a project been attempted whereby a small rural hospital was to be directly and intimately associated with a large urban university medical center (New York University, Bellevue Medical Center), and with all the implications that go with such a relationship.

This very readable book presents a graphic account of the conception and maturation of an unusual medical center. The stages of hospital development, from that of consultation and fund raising, through an evaluation and constructive criticism of the entire process which are presented here make this book valuable reading for all health personnel and community leaders.

E. THOMAS DEHAVEN

The Pre-Paid Medical Page

THE VITAL role played by voluntary prepaid health insurance in staving off governmental control of medicine cannot be overstated. The extent of the coverage provided by the Blue Cross and Blue Shield as well as the numerous commercial companies grows larger each year. The September issue of *Medical Economics* gives convincing evidence of the need that exists and the manner in which this need is being met by non-federal agencies:

"Nearly 110 million Americans have some form of hospital expense coverage (52 million through Blue Cross).

"Nearly 98 million have some form of surgical expense coverage (37 million through Blue Shield).

"Nearly 55 million have some form of medical expense coverage (about 27 million through Blue Shield)."

Despite these impressive figures we cannot rest on our laurels and congratulate ourselves that the battle is won. The present population of the United States is estimated at 165 million. This means that 55 million have no form of hospital expense coverage. Approximately 67 million Americans are not protected against surgical costs and 110 million have no insurance against medical expenses.

Much, therefore, remains to be done before we can feel that the public is protected adequately. The problems of the Blue Cross and Blue Shield should be explained to the physicians of Virginia. Misconception on the part of physicians or laymen may prejudice them against various aspects of prepaid health insurance. Such differences should be brought into the open and resolved.

In an effort to extend the medical coverage afforded by the various prepaid health plans and to serve as a forum in which mutual problems may be aired, a page will be set aside each month in the *Virginia Medical Monthly* to deal with this subject. Dr. Richard J. Ackart has undertaken the editing of this feature and he has assured us that any organization offering prepaid health insurance in the Commonwealth of Virginia, whether it be Blue Cross, Blue Shield, or a commercial company, will have equal access to this page. There is a real need for such a forum and the *Virginia Medical Monthly* is pleased that this need will be met on its pages under the able guidance of Dr. Ackart.

H.J.W.

Current Currents

THE AMA WASHINGTON OFFICE has completed its fourth annual report on the Federal medical budget. It is a factual, objective study of how much the government is spending this fiscal year in all health and medical fields. The report is based on actual appropriations and on information obtained directly from Federal agencies and departments.

It is often difficult, when talking in billions of dollars, to make the totals meaningful. However, here are some conclusions:

1. What the U.S. is spending in health fields alone represents an average cost of \$15.17 per man, woman and child. Incidentally, it is costing each of them \$1.78 more this year than last.
2. If only wage-earners are considered, they will be paying on the average of \$38.72 each to finance the Federal government's health-medical operations. That is \$4.40 more than they paid last year.
3. The average family will be paying \$54.61 this year for the U. S. government's health-medical activities.
4. Even in an overall Federal budget of \$61.2 billion, the total health cost is not insignificant. It is a billion dollars more than the cost of running the Commerce Department, half a billion more than all Agriculture Department expenses and six times Interior Department's budget.
5. Mostly because of spectacular increases for research, health programs of the Department of Health, Education, and Welfare this year will cost half again as much as they did last year.
6. For the first time since World War II, medical costs of Veterans Administration top the list, passing the Defense Department. A close third is the Department of Health, Education, and Welfare.

The Washington Office makes it clear that the special report is based on spending alone, and does not attempt to evaluate the many individual programs. Undoubtedly many of them are necessary and will pay rich dividends. It is also likely that some could be questioned. The purpose of the report, however, is to show exactly what the programs cost.

MEMBERS ARE URGED to read the minutes of Council and the House of Delegates published in this issue. It is also recommended that the Auditor's report be given careful study.

CONTRIBUTE NOW TO THE AMERICAN MEDICAL EDUCATION
FOUNDATION

MOST PEOPLE like their doctors and are generally satisfied with medical service. However, the public offers some definite suggestions for ways doctors might improve the doctor-patient relationship. These suggestions came to light when results of a nationwide survey done by a market research firm for the AMA were tabulated.

Heading the list of suggestions was "be available, come when called". This desire that a doctor be available when needed is not news to the medical profession, whose members have been working for the last five or six years to blanket the country with 'round-the-clock emergency call systems and similar informal arrangements to guarantee that availability.

The second suggestion from the public is "charge lower fees". Doctors have long suspected that most of the profession's public relations problems arise from the economic side of medicine. Yet, in the survey, individual doctors' charges received only moderate criticism by the public. The public is by no means as critical of doctor bills as it is of other costs of medical care, such as hospital and drug bills.

The survey also showed that people want doctors to take more personal interest in them and be more friendly and sociable. The majority suggested closer adherence to appointment schedules and expressed annoyance at what was considered unreasonable waits. Those interviewed wanted physicians to be frank with them with regard to illnesses and fees.

THE HUMAN SIDE of medicine is depicted in a new twenty-eight minute dramatic film produced by the American Medical Association for use by local and state medical societies. Entitled "Even For One", the film will be available for bookings on local television stations after January 1, 1957. Component societies interested in sponsoring this television film locally as a public service project should contact the AMA Film Library or the State Office.

THE AMERICAN NURSES' ASSOCIATION states that approximately 28,000 more professional nurses are at work today in this country than there were two years ago. However, an additional 70,000 are needed to reach the reasonable goal of 300 professional nurses per 100,000 population.

Although the number of graduate nurses has increased in recent years, this does not mean that the supply is equal to the demand. Demands for nursing service have increased even more. These were brought about by advances in medical sciences, the development of prepayment insurance plans, widespread hospital construction, and the increasing awareness of health needs on the part of the people.

THE 1957 ANNUAL MEETING of The Medical Society of Virginia will be held at Washington's Hotel Shoreham from October 27-30.

And A Good Time Was Had—

The Roanoke meeting of The Medical Society of Virginia is a thing of the past but the memories will linger long. Hospitality was, as usual, at its height and nothing was left undone for the success of the meeting.

The registration was exactly 1100, including 733 doctors, 243 ladies, 112 technical exhibitors and 12 scientific exhibitors. The exhibits seemed to be well attended. The scientific exhibits were of an unusual high caliber and that cup of coffee and doughnut was quite a booster for those who were to climb the steps to and from the exhibit hall. Awards were made to the individual doctor exhibit and the institutional exhibit and were as follows: For the individual exhibit—1st award, Hand Injuries by Dr. Richard H. Fisher, Roanoke; 2nd award, Exfoliative Cytology by Dr. W. D. Dolan, Arlington; and 3rd award, Recent Advances in Ureteral Surgery by Drs. Austin I. Dodson, Jr., and J. Edward Hill, Richmond. For the institutional exhibits—1st award, Hypophysectomy in the Treatment of Advanced Cancer by Drs. Vincent Hollander, Gayle Crutchfield, and Juan Martinez-G., University of Virginia; 2nd award, Rheumatoid Disease by Drs. Elam C. Toone, Jr., Gordon Hennigar, and John Vaughan, Medical College of Virginia; and 3rd award, Reconstructive Surgery of the Head and Neck by Dr. C. C. Coleman, Jr., University of Virginia.

Dr. James D. Hagood, Clover, succeeded Dr. James P. King, Radford, to the presidency, and the following other officers were elected: president-elect, Dr. Harry C. Bates, Jr., Arlington; vice-presidents, Dr. Reverdy H. Jones, Jr., Roanoke; Dr. Ira L. Hancock, Creeds; and Dr. J. P. Sutherland, Harman; executive secretary-treasurer, Robert I. Howard, Richmond; Speaker of the House, Dr. John T. T. Hundley, Lynchburg; and vice-speaker, Dr. Fletcher J. Wright, Jr., Petersburg. Councilors are Drs. A. A. Creecy, Newport News; Walter P. Adams, Norfolk; Benjamin W. Rawles, Jr., Richmond; Fletcher J. Wright, Jr., Petersburg; Louis P. Bailey, Nathalie; Frank A. Farmer, Roanoke; Harold W. Miller, Woodstock; David W. Scott, Jr., Fredericksburg; James P. William, Richlands; and Jacob D. Zylman, Falls Church. Dr. Vincent W. Archer, Charlottesville, was re-elected as Delegate to the American Medical Association and Dr. Allen Barker,

Roanoke, as alternate. Dr. W. Linwood Ball, Richmond, holds over as delegate and Dr. Kinloch Nelson, Richmond, as alternate.

Many items of important business were discussed at the meetings of the Council and House of Delegates. Perhaps one of the most interesting from the standpoint of the entire membership was the authorization for the erection of a new headquarters building for the Society. The committee in charge of this is headed by Dr. James P. King and work has already been started towards securing property, architects, etc. The membership will be advised from time to time, through correspondence and in the Monthly, of any important developments in this project.

The golf tournament was well attended—the weather was perfect—and Dr. George Duncan, Norfolk, won the first low net prize, with Dr. Carrington Williams, Richmond, capturing the first low gross. Others winning prizes were Drs. Thomas Murrell, Richmond; J. W. Chinn, Tappahannock; J. E. George, Roanoke; W. R. Jordan, Richmond; J. E. Gardner, Roanoke; F. H. McGovern, Danville; Harry Johnson, Jr., Richmond; H. R. Yates, Jr., Charlottesville; C. W. Dorsey, Galax; J. J. Eller, Marion; and T. H. Jennings, Bedford.

New Members.

Since the list published in the November issue of the Monthly, the following new members have been admitted into The Medical Society of Virginia:

Allan LeRoy Armstrong, M.D., Charlottesville
George Ernest Arrington, Jr., M.D., Richmond
Robert Alexander Bell, M.D., Arlington
James Webster Brooks, M.D., Richmond
Donald Louis Brummer, M.D., Richmond
John Clyde Ellis, M.D., Grundy
Harold William Felton, M.D., Deltaville
Walter A. Hauser, M.D., Petersburg
David Milford Hume, M.D., Richmond
Gerard Joseph Inguagiato, M.D., Falls Church
Lester Dean Johnson, Jr., M.D., Falls Church
Donald Perry King, M.D., Richmond
William Dyer Liddle, Jr., M.D., Charlottesville
Joseph Walton Milam, M.D., Danville
John Eugene Prominski, M.D., Falls Church
Robert Day Richards, M.D., Hallwood
Allan Myer Unger, M.D., Richmond
Herbert Wiesinger, M.D., Richmond
Morton Callowhill Wilhelm, M.D., Charlottesville

Dr. James M. MacMillan,

Richmond, has been appointed medical director of Reynolds Metal Company. He will be in charge of directing the medical plans of the company's headquarters in Richmond, as well as of the other offices and plants of the entire company throughout the United States and foreign countries. The appointment was effective December 1st. Dr. MacMillan will have his headquarters in Richmond.

Drs. Littlepage on World Tour.

Drs. Lewis and Eleanor Littlepage, Norfolk, are on a trip around the world that will take them into hospitals of 16 countries, including Russia. They flew from Los Angeles to Honolulu on October 13th on the first leg of the Second Post-Graduate Surgical Clinic of the International College of Surgeons. The tour will take in Hawaii, Japan, Formosa, Hong Kong, Philippine Islands, Thailand, India, Pakistan, Iran, Turkey and Greece. On November 26th, the couple left that tour and went to Vienna, Germany, Russia, Sweden, and France on their own. They expect to return to Norfolk on December 22nd.

Dr. George Ritchie, Jr.,

Richmond, addressed the district meeting of the Virginia Federation of Business and Professional Women's Clubs in October. His subject was Spiritual Psychosomatic Medicine.

Facts About Tuberculosis

There is reason to believe that more patients are under medical supervision for TB today than ever before, due in part to more intensive case finding as well as to the number of patients kept alive, but who are not cured by drug therapy. Thus, the handling of TB, once the province of specialists, is moving increasingly into the offices of general practitioners along with increasing home care treatment.

All figures for 1955 used in this article are provisional.

The resistant nature of tuberculosis is made evident by the relatively slow decline in the number of new cases reported each year—a decline of about 4 per cent a year. This is not spectacular like the decline in rate of deaths, now about 10 per 100,000 population.

Where does Virginia now stand in its efforts to control TB? Virginia is one of fifteen states and the District of Columbia to have an increase in the number of new active cases reported in 1955. Forty states have lower rates of newly reported TB cases. Thirty-five states have lower death rates from tuberculosis.

What progress have doctors, nurses, health departments, tuberculosis associations and other groups made toward the eradication of tuberculosis in Virginia? They have brought down the recorded death rate from TB from an all time high of 182.4 per 100,000 population in 1915 to 10.5 today. The 377 deaths from TB in 1955 was certainly a marked improvement over the more than 4,000 deaths from TB in 1915. Concerted efforts of all workers and agencies have forced TB from first to eleventh place as a cause of death in Virginia, but TB is still the top killer among communicable diseases in the state.

At this season of the year, tuberculosis associations in Virginia ask your support of the annual Christmas Seal Sale, and express their gratitude for your continuous efforts to inform your patients, their families and the general public on the basic facts concerning tuberculosis.

Dr. John O. Boyd, Jr.,

Roanoke, has been elected president of the Roanoke Chapter of the Virginia Cancer Society.

Richmond Memorial Hospital Appointments.

Dr. Harry J. Warthen, Jr., is to be chief of the general surgery division of the new hospital which opens in January. Other appointments which have been announced are: Dr. R. C. Longan, chief of neuropsychiatry; Dr. Frederick P. Moore, chief of pediatrics; Dr. R. Campbell Manson, chief of dermatology; Dr. William F. Bryce, chief of the division of eye surgery; Dr. Emmanuel Wallerstein, chief of the division for ear, nose and throat; Dr. Robert Terrell as chief of proctology; Dr. James Tucker chief of orthopedic surgery; Dr. Tom Walker chief of anesthesia; and Dr. Charles Nelson chief of urology.

Dr. Warthen will head the general surgery division with Dr. John P. Eastham as vice-chief and Dr. W. Lowndes Peple as secretary.

Dr. Rachel Weems,

Formerly of Ashland, has been named full-time director of physical medicine and rehabilitation at the Woodrow Wilson Rehabilitation Center in Fishersville. She has been serving as part-time director while maintaining her practice in Hanover County.

Dr. C. C. Coleman, Jr.,

Assistant professor of Surgery of the University of Virginia, will be in charge of the new plastic surgery division of the University. This will include the diagnosis and care of all patients falling within the scope of plastic surgery, teaching the principles of plastic and reconstructive surgery to medi-

cal students and surgical house staff, and investigative work in the various fields of interest to the plastic surgeon.

Plans for a plastic surgery division at the University have been in the making since April 1955, when Dr. Coleman was appointed assistant professor of plastic surgery, part-time. Prior to his full-time appointment, he was engaged in the practice of plastic surgery in Richmond, where he was affiliated with the Medical College of Virginia.

Annual McGuire Lectures Postponed

The November issue of the *Monthly* carried an announcement and program of the Annual McGuire Lectures to be held at the Medical College of Virginia on December 12th to 14th. The lecturer, Dr. Andre Cournand, New York, was made Nobel Prize Winner for this year and has to be in Stockholm to receive this prize on December 10th.

It is hoped the lectures may be held after Christmas and dates will be published in the January issue, if not too late for publication.

Annual Shelton Horsley Award.

Mrs. Harriet M. Sinclair, wife of a Warrenton doctor, has been presented the annual J. Shelton Horsley award by the Virginia Branch, American Cancer Society. The award is given each year to the Virginian chosen as having made the greatest contribution to cancer control during the past twelve months. Mrs. Sinclair is the wife of Dr. James W. Sinclair and is secretary of the Virginia Division. She has worked in the cancer program in Virginia for the past ten years and organized her local community program.

Dr. A. Ray Dawson,

Chief of Physical Medicine and Rehabilitation at McGuire Veterans Hospital, Richmond, served as moderator for two panels at a meeting of the National Rehabilitation Association held in Denver, Colorado, in October.

Inauguration of President of College.

The inauguration of Dr. Robert Blackwell Smith, Jr., as the fourth president of the Medical College of Virginia will take place on December 17th at 11:00 A.M., in The Monumental Church, Richmond. The speaker for this occasion will be Dr. Joseph Clarke Robert, president of Hampden-Sydney College. His subject will be "The Healing Arts and the American Way."

The chairman of the Board of Visitors, Buford Scott, will present Dr. Smith for induction as president. The oath of office will be administered by the

Honorable Edwin Wren Hudgins, chief justice of the Supreme Court of Appeals of Virginia.

After the inaugural exercises, there will be a luncheon for delegates and their wives in the Social center of the College, followed by a reception in the headquarters of the Alumni Association. Tours covering all activities of the college will be arranged for those who wish to take them.

Annual Winter Clinic.

The annual winter clinic of the Louise Obici Memorial Hospital, Suffolk, will be held January 16th. The following program will be presented: Panel Discussion on Arthritis—Dr. Joseph Hollander, Philadelphia, moderator; Dr. Darrell Crain, Washington; and Dr. Elam Toone, Richmond. Panel Discussion on Vaginal Bleeding—Dr. Hugh Grady, Washington, moderator; Dr. Gordon Douglas, New York; and Dr. William Barfield, Augusta, Ga.

American Board of Obstetrics and Gynecology

The next scheduled examinations (Part I), written, for all candidates will be held in various cities of the United States, Canada, and military centers outside the Continental United States, on Friday, February 1, 1957, at 2:00 P.M.

Candidates must submit case reports to the office of the Secretary within thirty days of being notified of their eligibility to Part I. The cases must be prepared in the manner described in the Bulletin of the Board with a duplicate index list.

Requests for re-examination in Part II must be received prior to February 1, 1957.

Current Bulletins outlining present requirements may be obtained by writing to: Robert L. Faulkner, M.D., Secretary, American Board of Obstetrics and Gynecology, 2105 Adelbert Road, Cleveland 6, Ohio.

Dr. E. G. Gill,

Roanoke, was elected vice-president of the eye, ear, nose and throat section of the International College of Surgeons at its recent meeting in Chicago. He is also regent for the College in Virginia.

On October 2nd, Dr. Gill addressed the Bedford County Medical Society on Recent Trends in Cataract Surgery.

Essay Contest.

The 1957 Mississippi Valley Medical Society Essay Contest has been announced. Any subject of general medical or surgical interest, including medical economics and education, may be submitted providing the paper is unpublished and is of interest and applicable value to general practitioners of

medicine. Manuscripts must not exceed 5000 words and be submitted in five complete copies, in manuscript form. Contributions are accepted only from physicians who are members of the A.M.A. and who are residents and citizens of the United States.

The winning essay receives a cash prize of \$100.00, gold medal, and a certificate, also an invitation to address of the annual meeting of the Mississippi Valley Medical Society.

Further details may be secured from Harold Swanberg, M.D., Secretary, 209-224 W.C.U. Building, Quincy, Ill.

The Annual Prize Lecture

Sponsored by the American Congress of Physical Medicine and Rehabilitation, is open to anyone but is primarily directed to medical students, interns, residents, graduate students in the pre-clinical sciences and graduate students in physical medicine and rehabilitation. Any subject of interest or pertaining to the field of physical medicine and rehabilitation may be submitted. Manuscripts must not exceed 3,000 words (exclusive of headings, references, legends for cuts, tables, etc.) and the number of words must be stated on the title page. An original and one carbon copy must be submitted. The winner shall receive a cash award of \$200.00, a gold medal properly engraved, a certificate of award and an invitation to present the contribution at the 35th Annual Session of the American Congress of Physical Medicine and Rehabilitation.

Further information may be obtained from the Congress, 30 N. Michigan Avenue, Chicago 2, Ill.

American Congress of Physical Medicine and Rehabilitation.

The 35th annual scientific and clinical session will be held September 8-13, 1957, inclusive, at Hotel Statler, Los Angeles. All sessions will be open to members of the medical profession in good standing with the American Medical Association. In

addition to the scientific sessions, annual instruction seminars will be held.

Full information may be obtained by writing to the Executive Secretary, Dorothea C. Augustin, 30 North Michigan Avenue, Chicago 2, Illinois.

For Sale

Pro-x-ray table model, almost new. Complete equipment—apron, tank, holders, etc. Cost \$1900.00. Will sell for \$1200.00. One year guarantee. Terms, if desired. Write #5, care the Monthly, P. O. Box 5085, Richmond 20, Va. (*Adv.*)

Desires Association.

Doctor, age 32, married, two years surgical training. Military obligation completed. Available July 1957. Will do general practice. Desires association with surgeon, general practitioner doing surgery, or with group. Will consider taking practice of retiring physician. Please send replies to M.D., 18 Perry St., Petersburg, Va. (*Adv.*)

For Rent

Doctor's suite. New, modern, air-conditioned four-office building. Ideal location, near hospital. Write #10, care the Monthly, P. O. Box 5085, Richmond 20, Va. (*Adv.*)

Wanted

Young physician to take over established practice in rapidly growing suburban area in Northern Virginia. Modern equipped, air-conditioned office for rent. Write #15, care the Monthly, P. O. Box 5085, Richmond 20, Va. (*Adv.*)

For Sale

Ear, nose and throat equipment. Furniture for reception room, private office and secretary's office. Instruments in good condition. Complete sets for ear, nose and throat treatment and operations. Half catalogue price. Write #20, care the Monthly, P. O. Box 5085, Richmond 20, Va. (*Adv.*)

Obituaries

Dr. James Warren Dorsey Haynes,

Mathews county's oldest physician, died October 23rd after a long illness. He was eighty-eight years of age and a graduate in medicine of the University of Maryland in 1889. Dr. Haynes had practiced in Mathews since 1895 and had retired three years ago after sixty-four years of practice. He was a Life Member of The Medical Society of Virginia, having joined in 1914. Two daughters and three sons survive him.

Dr. Albertson.

Dr. Horace Allen Albertson, surgeon, of Roanoke died at the age of 38 on August 20, 1956, after an illness of one year.

Dr. Albertson, a native of Richmond, graduated from the School of Pharmacy and the School of Medicine, Medical College of Virginia. After his internship at the Johns Hopkins Hospital he served in the Medical Corps of the United States Army during World War II. He then completed his surgical residency training at the Jefferson Hospital, Roanoke, and Veterans Hospital, Newington, Connecticut associated with Yale Medical School.

Dr. Albertson entered the practice of surgery in Roanoke, associated with the Jefferson Hospital in 1950. In this capacity his skill and deep interest in his patients quickly made him one of the most admired and respected members of the profession in this city. A tireless worker, he contributed frequently to the medical literature in spite of many committee duties and service as secretary of the Roanoke Academy of Medicine for one year.

Among some of his honors and memberships were AOA, the American Board of Surgery, American College of Surgeons, and the Virginia Surgical Society.

In his personal life, Dr. Albertson was admired by a host of friends. He was known for his devotion to his family and lived an exemplary Christian life as a very active member of the Second Presbyterian Church.

The passing of Dr. Albertson is indeed a tragic loss to

the profession and the community at large.

BE IT THEREFORE RESOLVED, that the Roanoke Academy of Medicine record in its minutes our sorrow of the passing of Dr. Albertson and that a copy of this resolution be entered in the minutes of the Society, a copy forwarded to the family of the deceased and a copy sent to The Medical Society of Virginia.

DR. ROBERT S. HUTCHESON

DR. C. L. CROCKETT, JR.

DR. HUGH H. TROUT, JR., *Chairman*

Dr. Vaughan.

Dr. Richard Wingfield Vaughan who died on June 30th following an attack of coronary thrombosis was born January 11, 1893, in Birmingham, Alabama. He spent most of his life in Richmond, Virginia. He was graduated from the University of Richmond in 1912, and from the Medical College of Virginia in 1916. He interned at Gouvenir Hospital in New York and following this, served in the United States Navy for a period of two years during the First World War. After his discharge from the Navy, he was associated with the late Dr. M. L. Anderson in the general practice of Medicine in our city. He later returned to New York and served an Eye, Ear, Nose and Throat residency at Bellevue Hospital. On his return to Richmond he was associated with the late Dr. Karl Blackwell before going into private practice.

He was an active and interested member of the Academy of Medicine as noted by his regular attendance. Dr. Vaughan contributed generously of his time and energy to the progress of Medicine in Richmond. He will be greatly missed by his many patients, friends and fellow practitioners.

Dr. Vaughan is survived by his wife and two daughters.

BE IT RESOLVED that his tribute be recorded in the official minutes of the Richmond Academy of Medicine, and a copy be sent to the family of the deceased.

EDWIN D. VAUGHAN, M.D.

GEORGE H. SNEAD, M.D.

MARSHALL L. BOYLE, JR., M.D.

**IT'S NOT TOO SOON
TO MAKE YOUR PLANS
TO ATTEND
THE ANNUAL MEETING
OF
THE MEDICAL SOCIETY OF VIRGINIA
TO BE HELD AT THE SHOREHAM
WASHINGTON, D. C.
OCTOBER 27-30, 1957**

INDEX TO VOLUME LXXXIII

January 1956—December 1956, inclusive

January	— pages 1- 42	April	— pages 141-182	July	— pages 275-324	October	— pages 421-484
February	— pages 43- 90	May	— pages 183-232	August	— pages 325-368	November	— pages 483-538
March	— pages 91-140	June	— pages 233-274	September	— pages 369-420	December	— pages 539-598

AUTHOR INDEX

- Adams, John D., 116
 Alrich, E. Meredith, 185
 Apperly, Frank L., 26
 Atkinson, Gerald W., 391
 Baker, James P., 185
 Beckwith, Julian R., 512
 Berger, James S., 101, 158
 Bickers, William, 91, 202
 Bilisoly, Frank N., 496
 Blanton, Wyndham B., 532
 Bloom, Nathan, 63, 500
 Boines, George J., 247
 Boshier, Lewis H., Jr., 362
 Bradley, Chester D., 197
 Bray, Maurice M., 343
 Brick, Harry, 59
 Brown, James M., 337
 Butterworth, John F., 379
 Butterworth, Thomas R., Jr., 540
 Cabaniss, W. Harvey, Jr., 327
 Camp, Paul D., 3
 Cantor, Hyman, 48, 253, 386
 Caravati, Charles M., 539
 Carroll, George J., 343
 Carter, Evelyn B., 261
 Cerri, Santo, 514
 Choy, S. H., 517
 Cimmino, Christian V., 177, 270
 Coleman, Claude C., Jr., 250
 Coleman, William P., 6
 Connell, G. Mason, 493
 Cooper, George, Jr., 185
 Curry, James C., 544
 Daugherty, Leslie E., 233
 Davey, Chuck, 557
 Dennie, Charles C., 278
 Devine, John W., 303
 Devine, John W., Jr., 303
 Deyerle, William M., 285, 369
 Dodson, Austin I., 297
 Dodson, Austin I., Jr., 151
 Drash, E. C., 225
 Ellett, Rufus P., Jr., 214
 Ende, Milton, 155, 503
 Feraru, Felix, 161
 Ferry, Allen M., 146
 Finch, Fred L., 59
 Fowlkes, Richard W., 332
 Frankel, Charles James, 183
 Friedman, Asher A., 258, 440
 Goodman, Harold, 161
 Gray, Mary C., 21
 Hamner, James L., 477
 Hare, Ralph, 343
 Harris, Malcolm H., 19
 Hegre, Erling S., 23
 Hennigar, Gordon R., 191, 517
 Hines, Ben H., 27
 Holmes, E. M., Jr., 1
 Holt, Mark E., Jr., 155
 Ingersoll, Everett H., 23
 Jacobson, Philip, 72
 Jamison, Robert M., 67
 Jones, Brock D., Jr., 200
 Jones, Louise L., 23
 Kappes, Willam C., Jr., 391
 Kay, Saul, 297
 Kay, William R., 517
 King, William P., 485
 Klingman, Walter O., 240
 Langford, Herbert G., 3
 Lascara, Vincent E., 438
 Lloyd, T. Stacy, Jr., 340, 551
 Maclaurin, Angus W., 383
 May, Virgil R., Jr., 379
 McGinnes, G. Foard, 141
 McGrath, William L., 487
 McLelland, Robert, 554
 Mennell, John McM., 295
 Minor, George R., 185
 Mitchell, Fred N., 113
 Mitchell, Robert Edgar, Jr., 325
 Moon, Cary N., Jr., 143
 Murrell, Thomas W., Jr., 188
 Musselman, Larry K., 500
 Noel, R. D., 116
 Outland, Charles L., 307
 Packer, Ivan, 158
 Park, Herbert W., 277
 Parker, Joseph C., 206
 Parrish, Henry M., 383
 Pifer, William H., 514
 Ragland, Stuart, Jr., 14
 Reid, J. Douglas, 261
 Roncaglione, Carl J., 285
 Ross, Robert A., 45
 Rucker, Edwin, 208
 Scott, Morgan E., 337
 Sease, C. I., 345, 510
 Stafford, Edward S., 43
 Stoneburner, John M., 347
 Swineford, Oscar, Jr., 6, 483, 544
 Taliaferro, Isabel, 108
 Thomas, J. Warrick, 93
 Thompson, W. T., Jr., 191
 Thornhill, T. M., 303
 Thornton, W. Norman, Jr., 185
 Todd, M. H., 55
 Trice, E. Randolph, 332
 Tuttle, Robert L., 383
 Vaughan, Edwin D., 300
 Vosburgh, B. L., 371
 Waddell, W. W., Jr., 113
 Warthen, Harry J., 10
 Weaver, Edgar N., 431
 Wells, R. Lomax, 374
 Whicker, Charles F., 200
 Williams, Armistead M., 506
 Williams, Carrington, 423
 Williams, John Bell, 235
 Willis, James G., 340
 Wilson, Arthur L., 211
 Woodward, Fletcher D., 143
 Wright, R. Lewis, 305
 Wyman, Stanley M., 421

Abdomen, Large cysts of the, 423
 Acne, Post-, scarring, Wire brush plan-
 ing for, 188
 Adrenal gland pathology: Diagnosis and
 treatment, 151
 Alcoholism, Pyridoxine (Vitamin B₆) in,
 391
 Allergy, Otolaryngological manifestations
 of, 93
 Aneurysm, Ruptured dissecting, 517; Eso-
 phageal obstruction by — of lower
 thoracic aorta, 161; Dissecting — of the
 aorta: with neurological involvement,
 431
 Aneurysmorrhaphy for traumatic carotid
 aneurysm and carotid-jugular arterio-
 venous fistula, Lateral arterorrhaphy and
 transvenous, 386
 Aorta, Esophageal obstruction by aneu-
 rysm of lower thoracic, 161; Dissecting
 aneurysm of the —, 431
 Arthritis, Hydrocortisone in: treatment of
 case complicated by duodenal ulcer, 21
 Arterorrhaphy and transvenous aneurysmor-
 rhaphy for traumatic carotid aneurysm
 and carotid-jugular arteriovenous fis-
 tula, 386
 Atarax, Clinical evaluation of, 503
 (Au 198): The radioactive gold program,
 185
 Baghdad, Mission to, 307
 Bile, Milk of calcium, 554
 Bladder in animals and man, The motor
 innervation of the urinary, 23
 Blue Shield is the doctor's plan, 563
Book Announcements
Bunnell—Hand Surgery, 80
Cameron—The Truth About Cancer, 358, 587
Ciba Foundation—Ageing, General Aspects, 80;
 The Human Adrenal Cortex, 80; Experi-
 mental Tuberculosis, 171; Histamine, 358
Coates-Hoff—Environmental Hygiene, 80, 171;
 Personal Health Measures and Immuniza-
 tion, 171
Cutolo—Bellevue is My Home, 358
Elkin-DeBakey—Vascular Surgery, 171
Ellis—A Dictionary of Dietetics, 358, 587
Featherstone—Sports Injuries Manual, 399
Garb—Laboratory Tests in Common Use, 358
Green—Asclepiades, 80, 358
Greenblatt—A Doctor's Marital Guide for Pa-
 tients, 358
Hollinshead—Anatomy for Surgeons, 399
Jeffrey—White Coolies, 171
Light—Electrodiagnosis and Electromyography,
 358
Marshall—Textbook of Urology, 399
Pathology Seminars, 80, 131
Roback—Present Day Psychology, 80, 131
Rosenfeld-Makover—The Rochester Regional
 Hospital Council, 358
Runes—On the Nature of Man, 171
Shestack—Handbook of Physical Therapy, 358
Sterling—Polio Pioneers, 80
Sternberg—Therapy of Fungus Disease, 358
Suner—Classes of Biology, 80
Trussell—Hunterdon Medical Center, 358, 587
VanPelt—Hypnotic Suggestion, 171
Winslow—The Menninger Story, 358
 Bowel, Volvulus of the small, 506
 Boxing your insurance problems, 557
 Bromide intoxication, The existing danger
 of, 337
 Bronchial-pancreatic fistula, 510
 Brucellergen as a screening test: observa-
 tions on chronic brucellosis, 544
 Brucellosis, Observations on chronic: with
 emphasis on brucellergen as a screening
 test, 544
 Bursitis, Unusual patella, 379
 Caffeine gastric-analysis, The, 325
 Carcinoma of the prostate with metastases
 to the penis, 297

Caries and drinking water, A note con-
 cerning endemic goiter, dental, 26
 Carotid aneurysm and carotid-jugular
 arteriovenous fistula, Lateral arterorrhaphy
 and transvenous aneurysmorrhaphy
 for traumatic, 386
 Chest pain, Diagnosis of, 3
 Cholangiograms, Operative: a critical re-
 view of their value, 116
 Chronic illness in Virginia, 19
 Clinicopathological conferences, 517
 Club foot treatment: results of continua-
 tive management, 285
Colleges
 Medical College of Virginia, 319
 University of Virginia, 320
 Communicable diseases, Reporting, 120
 Coronary heart disease, Some factors con-
 cerning the cause of, 412
 Corporate practice of medicine, 36
 Corynebacterium diphtheriae meningitis,
 113
 Craven, Dr., and the captivity of Jefferson
 Davis at Fort Monroe, 197
 Cysts of the abdomen, Large, 423
 Davis, Jefferson, at Fort Monroe, Dr.
 Craven and the captivity of, 197
 Deafness due to otosclerosis: results ob-
 tained by operation upon 100 consecu-
 tive cases, 143
Deaths
 Abbitt, John Willis, 90
 Albertson, Horace Allen, 482, 593
 Baughman, Mary Barney, 231
 Booker, Lyle Steele, 420, 537
 Christian, David Alexander, 42
 Courtney, Robert Hull, 324
 Davis, Robert Allen, 274, 324, 368
 DuBose, Roger Harold, 323, 538
 Dunford, Joseph Clinton, 231
 Dunkley, James H., 139, 324, 538
 Eames, Manley Hunter, 90
 Edwards, Charles Mundy, 139
 Gardner, Emily, 139, 231
 Gouldin, John Milton, 482
 Graham, Charles Fox, 182, 232
 Graves, Stanley Hope, 181
 Griffith, R. Sumter, 39, 182
 Habel, James Martin, Sr., 182
 Hankins, Thornton Wilson, 482
 Haynes, James Warren Dorsey, 593
 Hundley, Preston Garnett, 274
 Jones, Clarence Porter, Sr., 181
 Kruger, Alfred Leon, 90, 140
 Llewellyn, Charles Elroy, 482
 Martin, James Calvin, 482
 Nuckols, Ernest Benjamin, 368
 Parker, William Henry, 323
 McDowell, William Patton, 90, 139
 Murray, Alexander Eston, 274
 Runyon, Emily Chenault, 231
 Shackelford, John Armstrong, 139
 Vaughan, Richard Wingfield, 368, 593
 Warinner, Junius Ernest, Jr., 482
 Webb, William Chappell, 90
 Delivery, Manual exploration of the uterus
 following, 214
 Diphtheria immunizations, 77
 Diphtheriae meningitis, Corynebacterium,
 113
 Disc syndrome of the low back, The de-
 generative, 146
 "Dizziness" as a patient complaint, 496
 Drug eruptions, 258
 Duodenal ulcer, treatment of case com-
 plicated by: Hydrocortisone in arthritis,
 21
Editorials
 Aspirins, Super, 483
 "Belroi", 133
 Cardiac arrest, 362
 Case, report, The, 177
 Caffeine gastric-analysis, The, 325
 "Cancer and common sense", 271

- Changing scene, The, 275
 Coronary heart disease, Some factors concerning the cause of, 412
 Discourtesy, An every day, 177
 Emily Gardner memorial, The, 411
 Fluoridation hassle, The, 475
 Hepato-toxic drugs, The use of, 539
 Highway traffic accidents, 160
 "Legal Mortis", 369
 Medical article, The multiple-authored, 316;
 The private practice of medicine and—
 ethics, 477
 Poliomyelitis vaccine, 1956, 141
 Pre-paid medical page, The, 588
 President—A man you should know, Your
 new, 531
 Private and public medical practice, 1
 Pro bono publico, 84
 Public law 569, 476
 Radiologist and his fellow physicians, The, 270
 Rh dilemma, The, 91
 R.M.H., The, 532
 Rucker's memorial book, Dr., 226
 Seal, Our new, 37
 Tetanus, The prevention of, 43
 Tuberculosis patient, Home care for the, 225
 V.D. survey in Virginia, 316
 Virginia Medical Monthly, Your, 362
 Why write, 233
 X-ray examination, Limitation of, 421
- Electro-cerebro-therapy, Ambulatory, 59
 Endocrine syndromes by specific laboratory
 assay, Characterization of certain, 103
 Esophageal obstruction by aneurysm of
 lower thoracic aorta, 161
 Esophagus, Rupture of the, 300
 Fistula, Bronchial-pancreatic, 510
 Foramen of Winslow, Hernia through the,
 158
 Gastric analysis, The caffeine, 325; Mal-
 function following — r section: gastro-
 jejunal stroma, 10
 Gastrointestinal reactions, Psycho-physio-
 logical, 438
 Gastrojejunal stricture: malunction follow-
 ing gastric resection, 10
 Geriatric practice, Some experiences with
 metrazol in, 540
 Glaucoma, Treatment of, 27
 Goiter, dental caries and drinking water,
 A note concerning endemic, 46
 Gynecological symposium, Obstetrical and,
 200
 Health Insurance Council, You and the,
 493
 Hematoma, Unsuspected chronic subdural,
 305
 Hepatic coma: clinical and biochemical
 aspects, 14
 Hepato-toxic drugs, The use, 539
 Hernia through the foramen of Winslow,
 158
 Herpes simplex: a dermatologic enigma,
 332
 Hormone controls bleeding, 72
 Hydrocortisone in arthritis: treatment of
 case complicated by duodenal ulcer, 21
 Hypofibrinogenemia in pregnancy, 208
 Illness in Virginia, Chronic, 19
 Industrial medicine at the community
 level, 374
 Industry, Medicine in, 371
 Inferior vena cava ligation, 347
 Insurance problems, Boxing your, 557
 International Labor Organization upon
 world affairs, The impact and effect of
 the, 487
 Joint manipulation in general practice,
 295
 Leiomyoma of the ovary, 253
 Levallorphan in obstetrics, 551
 Liability insurance, Professional, 83
 Listeria-monocytogenes meningitis, 343
 Maternal mortality: omissions and com-
 missions, 45
 Meat and poultry inspection, 447
 Medical education of one hundred years
 ago: as described by Dr. William H.
 Taylor, 235
 Medical Society of Virginia: Delegates to
 American Medical Association, 79;
 Special Committee to Study the Treat-
 ment of Alcoholism, 124; Council Min-
 utes, 168; Congress on Industrial
 Health, 219; A New Society Headquar-
 ter's Building, 360; Program Annual
 Meeting, 403; Reports for 1956 Annual
 Meeting, 448; Council Minutes, 471;
 Presidents, 472; Minutes of 1956 An-
 nual Meeting, 569
 Medicine in industry, 371
 Meningitis, Listeria-monocytogenes, 343;
 "Other —", 216; Corynebacterium
 diphtheriae —, 113
 Menopause, Abnormal bleeding at, 206
 Menstrual irregularity, 202
 Mental health: Interaction between pa-
 tients and employees, 352; How the
 guidance center benefits our communi-
 ty, 396; Pseudo — deficiency, a psychia-
 tric syndrome, 443; Who are the pa-
 tients in our — hospitals, 75, 122, 164,
 217, 263, 311; The role of the psycholo-
 gist in the — hospital, 566
 Mesodermal tumors of the uterus, Mixed,
 48
 Metrazol in geriatric practice, Some ex-
 periences with, 540
 Milk of calcium bile, 554
 Myocarditis, Non-specific, 191
 Narcotic prescription amendment, Oral,
 356
 Neurological and psychiatric disorders:
 some recent advances in therapy, 240 —
 Nutritive deficiency, General, 67
 Obstetrical and gynecological symposium,
 200
 Obstetrics, Levallorphan in, 551
 Occupational therapy for men, 29
 Old doc, 278
 Osteoma of the frontal sinus, 514
 Otolaryngological manifestations of all r-
 gy, 93
 Otosclerosis, Deafness due to: results ob-
 tained by operation upon 100 consecu-
 tive cases, 143
 Ovary, Leiomyoma of the, 253
 Paget's disease of the nipple, 303
 Patella bursitis, Unusual, 379
 Penicillin hypersensitivity, 6
 Peptic ulcer, Massive bleeding from, 55
 Peripheral vascular disease, 63
 Plastic surgery, Cardinal principles of, 250
 Poultry and meat inspection, 447
 Pregnancy, Mitral valvulotomy during,
 340
 Poliomyelitis vaccine, Questions and
 answers dealing with, 309; — — pro-
 duction, 265; Virginia program for
 purchase, distribution and administra-
 tion of — —, 31; Misconceptions in —,
 247
 Pregnancy, Hypofibrinogenemia in, 208;
 Abnormal uterine bleeding in the first
 and second trimesters of —, 211; Ec-
 topic —, 200
 Prostate with metastases to the penis,
 Carcinoma of the, 297
 Psittacosis, 523
 Psychiatric disorders, Neurological and:
 some recent advances in therapy, 240
 Psychology, Internship in abnormal, 524
 Psycho-physiological gastrointestinal re-
 actions, 438
 Public relations, Half-way, 132

Pyridoxine (Vitamin B₆) in alcoholism, 391
 Radioactive gold (Au 198) program, The: a preliminary report, 185
 Rheumatic fever, Present status of prophylaxis for, 166
 Rocky Mountain Spotted fever, 394
 Sheehan's Syndrome, 155
 Sinus, Osteoma of the frontal, 514
 Skin problems of the face, Common, 440; Abnormal sensitivity of the — to sunlight, 327
 Snakebites, poisonous, 383
 Social security poll, 269; — —: big issue in 1956, 28

Societies

Accomack County Medical Society, 228
 Alexandria Medical Society, 317
 Alleghany-Bath County Medical Society, 415
 American College of Chest Physicians, 367
 American College of Physicians, 273
 American Medical Association, 365
 Arlington County Medical Society, 85
 Buchanan-Dickenson County Society, 135
 Fredericksburg Medical Association, 85
 Lynchburg Academy of Medicine, 364
 Mid-Tidewater Medical Society, 134
 Montgomery County Medical Society, 480
 Norfolk County Medical Society, 317
 Northern Virginia Academy of Surgery, 85
 Richmond Academy of Medicine, 85
 Richmond Eye, Ear, Nose and Throat Society, 178
 Roanoke Academy of Medicine, 317
 South Atlantic Association of Obstetricians and Gynecologists, 178
 Southern Medical Association, 38
 Tri-County Medical Society, 178
 Virginia Chapter, American Academy of General Practice, 179
 Virginia Obstetrical and Gynecological Society, 38
 Virginia Pediatric Society, 228
 Virginia Society of Ophthalmology and Otolaryngology, 317

Virginia State Board of Medical Examiners, 415
 Virginia Tuberculosis Association, 274
 Washington County Medical Society, 364
 Williamsburg-James City Medical Society, 135

Spleen, Rupture of the normal and diseased, 101
 Sunlight, Abnormal sensitivity of the skin to, 327
 Taylor, Dr. William H.: Medical education of one hundred years ago: as described by, 235
 Thymoma, Cervical, 345
 Time for re-appraisal, 485
 Tinea capitis infections in Virginia, 261
 T waves, Indeterminate or low, 500
 Typhoid fever, 353
 Typhus, Endemic, 568
 Ulcer, Massive bleeding from peptic, 55
 Urinary bladder in animals and man, The motor innervation of the, 23
 Uterine bleeding in the first and second trimesters of pregnancy, Abnormal, 211
 Uterus following delivery, Manual exploration of the, 214; Mixed mesodermal tumors of the —, 48
 Valvulotomy during pregnancy, Mitral, 340
 Vascular disease, Peripheral, 63
 Vena cava ligation, Inferior, 347
 Vipers, North American pit: bacterial flora of the mouths and venom glands, 373
 Volvulus of the small bowel, 506
 Water, A note concerning endemic goiter, dental caries and drinking, 26
 Wire brush planing for post-acne scarring, 188

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